On Bipartite Negation

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Abstract

Bipartite negation is the phenomenon in which two negators output to one instance of semantic negation. In this thesis I present an analysis of bipartite negation in Sgaw Karen, Ojibwe, and French, using original data from the former two languages and data from existing sources for French. I show that the negators in these languages differ with respect to clausal position, internal structure, meaning, and how the negators relate to each other.

I argue that bipartite negation derives from either syntactic agreement or what I term NegP splitting, whereby two constituents in an extended projection of negation are merged in separate locations in the clause, similar to Poletto (2008) and de Clercq (2013). Sgaw Karen and French exhibit distinct variants of syntactic agreement. In Sgaw Karen, one negator is semantically uninterpretable and undergoes AGREE with the structurally lower interpretable negator, while in French both negators are interpretable goals for a structurally higher silent head responsible for imparting sentential negation. Ojibwe exhibits NegP splitting such that the sentential negator and a structurally higher negator are derived from a single extended projection of negation and are merged in two clausal positions. Both negators are interpretable for negation and cannot be in a syntactic agreement relation as I assume that only uninterpretable constituents initiate the AGREE operation.

I present a framework of negation to explicate the functions of the negators in each language and to motivate why AGREE and NegP splitting are necessary to account for the range of facts on bipartite negation in these languages. Building on the work of de Clercq (2013), I argue that there are three classes of negators imparting contrary, contradictory, and focus negation respectively, each class having different internal structure. Each class of negator may merge in up to two distinct locations in the clausal spine, sentential negation being imparted by a contradictory

negator merged in the TP domain. I show that dividing negators into classes based on meaning, internal structure, and clausal position has implications for the syntax of negative polarity emphasis, negative replies, and syntactic doubling outside of the domain of negation.

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List of Abbreviations

ACC	accusative
APPL	applicative
AUG	augmentative
CAUS	causative
CL	clitic
CLASS	classifier
COMP	complementizer
CONJ	conjunct order
DECL	declarative
DEF	definite article
DEM	demonstrative
DET	determiner
DI	direct object
DIR	direct theme sign
EXPL	expletive
FUT	future
FV	final vowel
GN	geographic name
IMP	imperative
INDEF	indefinite
INFER	inferential evidential
LOC	locative
MASC	masculine
MID	middle intransitivizer
NEG	negation
NOM	nominalizer
NONF	non-factual
OBV	obviative
PERF	perfective aspect
PL	plural
POSS	possessive
PNEG	past negation
PP	personal pronoun
PRES	present
PRFV	perfective verb
PST	past
PTCL	particle
Q	question
REV	reversal particle
SG	singular
SM	subject marker
SUBJ	subjunctive
TOP	topic
WH-Q	wh-question

Chapter 1

Introduction

1.1 Scope of Inquiry

The central focus of this thesis is on bipartite negation, the phenomenon in which two negators output to one instance of semantic negation. The phenomenon is exemplified by French (Pollock 1989, Ouhalla 1990, Rowlett 1998, Péters 1999, Schapansky 2002, 2010, Roberts 2007, Zeijlstra 2009, Biberauer and Roberts 2011, Rooryck 2017), Afrikaans (Oosthuizen 1998, Bell 2004, Molnarfi 2004, Biberauer 2007, Biberauer and Zeijlstra 2012), Early Middle English (Jespersen 1917, Wallage 2005), and other languages. In these languages it is often typical for one of the two negators to be optional, as noted by the parentheses in the following examples[1].

(1) Marie (**ne**) mange **pas**. [French]
Marie NEG eats NEG
'Marie doesn't eat.' Zeijlstra (2009, p.447)

(2) Hy kom **nie** in (**nie**). [Afrikaans]
he come NEG in NEG
'He doesn't come in/He isn't coming in.' adapted from Biberauer (2007, p.9)

[1]Note that the parentheses have been left out in the Early Middle English example as the status of optionality among the two negators is unclear.

(3) I **ne** seye **not**. [Early Middle English]
I NEG say NEG
'I don't say.'

adapted from Jespersen (1917, p.9), cited in Wallage (2005, p.26)

A central puzzle that has been at the heart of many analyses of bipartite negation is how two negators output to one instance of semantic negation without the two negators cancelling each other out (a case of *duplex negatio affirmat* in logic, see discussion in Horn 1989). A common type of analysis of bipartite negation posits that the two negators exist in an agreement relationship, be it some form of Spec-head agreement (Pollock 1989, Haegeman 1995, Rowlett 1998) or agreement between a probe and a goal bearing uninterpretable and interpretable features respectively (Zeijlstra 2004, Roberts 2007, van Gelderen 2008, Willis 2012). Other approaches do not rely on syntactic agreement and instead posit that there is a special semantic relationship between the two negators that outputs to a single interpretation of negation in the clause (Kahrel 1996, Zeijlstra 2009, Rooryck 2017). Another approach has the two negators arising from a single extended projection of negation and merging in distinct phrases in the clausal spine (Poletto 2008, de Clercq 2013), the single NegP responsible for the single interpretation of negation.

As a point of clarification, it is necessary to discuss what this thesis is not about. This thesis is not about the multiple exponence of negative nominals or n-words[2]. In the following example, the two n-words in Spanish impart one instance of negation.

[2]The term n-word is due to Laka (1990) and describes any kind of negative nominal (nobody, nothing, nowhere. . .), these words analyzed as indefinites or quantifiers depending on the analysis (see Giannakidou 2006 for more discussion). I use the term multiple exponence of n-words here instead of negative concord as negative concord is sometimes used only when multiple n-words are present (Poletto, 2008), and in other instances the term subsumes the multiple exponence of n-words and/or clausal negators (Corblin et al., 2004).

(4) **Nadie** ha comido **nada**. [Spanish]
n-person has eat n-thing
'Nobody has eaten anything.' Penka (2011, p. 17)

This thesis focuses on the double exponence of clausal negators, as shown in (1)-(3). N-words and their interaction with clausal negators are discussed for French in chapter four in order to motivate the semantic import of clausal negators in this language.

This thesis focuses on what I term canonical negation, corresponding to the reversal of a proposition's truth value without any additional semantic effect. (5-b) exhibits canonical negation in English, a reversal of the truth value in (5-a).

(5) a. Maria went there. p

b. Maria didn't go there. $\neg p$

The two negators in tandem in French (1), Afrikaans (2), and Early Middle English (3) impart canonical negation. It is possible for two negators to yield negation with the added semantic effect of conveying a high degree of certainty on behalf of the speaker that an antecedent proposition is false, this phenomenon referred to in this thesis as negative polarity emphasis (Poletto and Zanuttini, 2013)[3,4].

(6) a. John arrived late.

b. **No** he did **not**!.

(6-b) is a negative rejoinder to the positive assertion in (6-a), the rejoinder conveying a high degree of emphasis on behalf of the speaker. I highlight the difference between canonical negation and negative polarity emphasis as I discuss both phe-

[3](6) is similar to the Italian examples used in Poletto and Zanuttini (2013). They do not discuss negative polarity emphasis in English. Poletto & Zanuttini do not directly refer to the Italian sentences they analyze as exhibiting negative polarity emphasis (they refer to the Italian sentences as NO CHE-sentences), although their article appears in an issue of Lingua on polarity emphasis, and thus I refer to these constructions as negative polarity emphasis constructions.

[4](6-b) can also be conveyed by suffixal *n't* instead of *not*. I discuss how suffixal *n't* is derived in chapter two.

nomena in this dissertation. In chapter five I provide an analysis of negative polarity emphasis in English to motivate claims about Ojibwe bipartite negation in chapter six as I argue that Ojibwe exhibits a semantically-bleached form of negative polarity emphasis. I provide an analysis of English negative polarity emphasis with the intention of expanding the analysis of negative polarity emphasis to other languages. In giving an analysis of negative polarity emphasis, I also give new analyses of the related syntactic phenomena of negative responses and polarity reversal.

An important goal of my thesis is to provide a typology of bipartite negation. I argue that there are at least three different kinds of canonical bipartite negation as exhibited by Sgaw Karen (Sino-Tibetan), French, and Ojibwe (Algonquian) respectively. These three types of languages impart canonical negation in different ways and exhibit a number of systematic differences to be discussed in forthcoming chapters. Sgaw Karen and Ojibwe are the primary languages discussed in this thesis. I discuss French primarily because it is frequently discussed in the literature on bipartite negation, and the framework I argue for offers new insights to understanding how negation operates in this language. All data on Sgaw Karen and Ojibwe cited in this dissertation are taken from original fieldwork unless otherwise noted. For French, all data is taken from scholarly sources.

In Sgaw Karen, two constituents, *tə1* and *bə5*, impart one instance of canonical negation, the former being obligatory and the latter optional[5].

[5]The numbers in the Sgaw Karen examples refer to tones:

- Tone 1: Rising inflection
- Tone 2: Heavy falling inflection
- Tone 3: Pronounced abruptly at a low pitch
- Tone 4: Pronounced abruptly at an ordinary pitch
- Tone 5: Pronounced with a falling circumflex inflection
- Tone 6: Pronounced with a prolonged even tone

The tone descriptions are based off of Gilmore (1898) and the number convention is adopted from Watkins (2001) and Gibb (2011).

(7) jə1 **tə1** nə2 pɨ2 (**bə5**) [Sgaw Karen]
I NEG understand NEG
'I don't understand.'

In Ojibwe the free morpheme *gaawiin* and the suffix *-siin*[6] impart one instance of canonical negation, both being obligatory in matrix clauses (more on the matrix/embedded clause distinction later).

(8) **Gaawiin** ni.mikwendan.**ziin**. [Ojibwe]
NEG 1SG.remember.NEG
'I don't remember.'

Sgaw Karen patterns with French (1) in that one negator is optional, although I argue that the optionality of *bə5* in Sgaw Karen and *ne* in French are due to different reasons to be discussed in chapters three and four.

The negators taking part in bipartite negation in Sgaw Karen, French, and Ojibwe also vary in terms of interpretability, the term employed here to mean whether or not a constituent has semantic import on its own (interpretable) or is dependent upon a second constituent to obtain its semantic import (uninterpretable). *tə1* and *bə5* in Sgaw Karen are examples of interpretable and uninterpretable negators respectively, as evidenced by the fact that *tə1* (9) but not *bə5* (10) can mark negation on its own.

(9) jə1 **tə1** nə2 pɨ2
I NEG understand
'I don't understand.'

(10) *jə1 nə2 pɨ2 **bə5**
I understand NEG
Intended: 'I don't understand.'

I argue that *bə5* is a clausal negator and that it obtains its negativity in (7) from the structurally lower *tə1* via syntactic agreement. That *bə5* cannot be used on its own

[6] *-ziin* in (8) is an allomorph of *-siin*.

(10) does not rule out that it is not a negative element. I argue in chapter three that *bə5* occupies the same projection imparting sentential negation in other languages, and thus *bə5* is responsible for marking sentential negation. I show in chapter four for French and in chapter six for Ojibwe that each negator taking part in bipartite negation can be used on its own in specific environments to impart negation. That negators vary in terms of interpretability is important for the analyses I give to each language.

Aside from optionality and interpretability, negators in the languages under discussion differ in terms of embeddability, that is whether or not a negator is prohibited from appearing in embedded clauses. In Ojibwe the negator *gaawiin*, which takes part in bipartite negation (8), but not the negator *-siin*, is prohibited in the conjunct order, a certain class of embedded clauses (11) (see Valentine 2001).

(11) Begish (***gaawiin**) bi-izhaa.**sii**.g.
1SG.hope NEG here-go.NEG.3SG.CONJ
'I hope he doesn't come.'

In Sgaw Karen (12) and French (13) both negators are licit in embedded clauses.

(12) pʷə6 lɤ1 ʔə1 **tə1** tʰɔ5 (**bə5**) ʔo5 pʰɛ1 ne5
person COMP 3SG NEG tall NEG is there
'The person who isn't tall is there.'

(13) Allons ailleurs si ce **n**'est **pas** possible de manger ici.
let's go elsewhere if it NEG'is NEG possible to eat here
'Let's go somewhere else if it is not possible to eat here.'

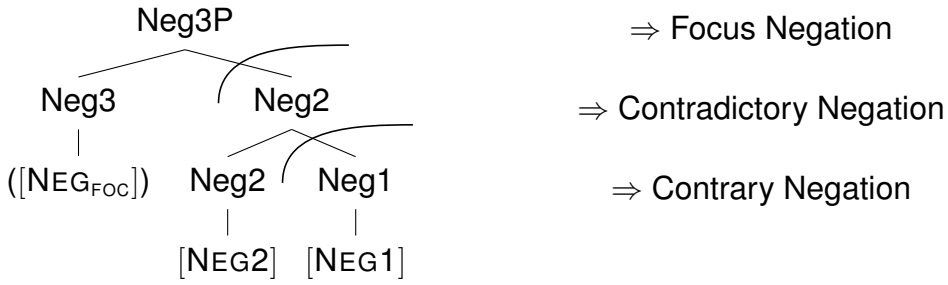
adapted from Schapansky (2010, p. 112)

In chapter six I provide an analysis of the conjunct order in Algonquian and argue that the conjunct order realizes a truncated left periphery in the vein of Haegeman (2003, 2006). I argue that *gaawiin* is merged in a focus projection and is prohibited from occurring in the conjunct order because of the lack of focus projection, similar

to the analysis of Hernanz (2006) deriving the lack of embedding positive polarity particles in Catalan and Spanish. I show that bipartite negation is licit in embedded clauses in Sgaw Karen and French as the negators in these languages merge in projections available in all types of embedded clauses.

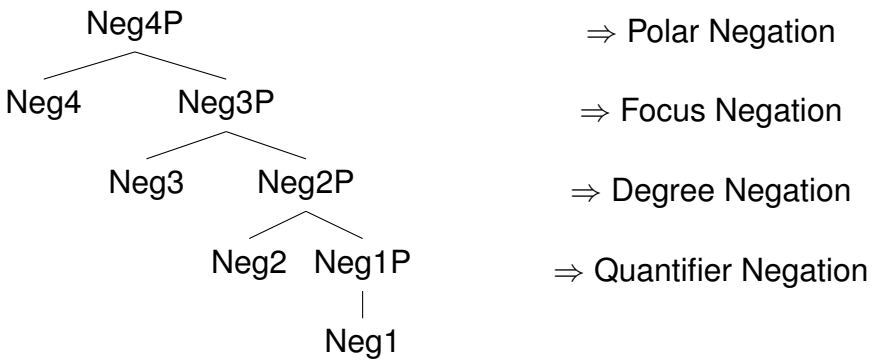
I argue, following Poletto (2008) and de Clercq (2013), that negators have complex internal structure. I distinguish three classes of negators along a tripartition similar to the analysis of pronouns in Cardinaletti and Starke (1999) and determiners in Panagiotidis (2000). The three classes of negators have the semantic import of contrary, contradictory, and focus negation respectively. I discuss the specific import of each class of negator in chapter two. Each negative class has different levels of internal structure (14). The negator-internal heads bear features, the import of these features to be discussed in chapter two. I borrow the convention of numbering each negative projection from Zanuttini (1997) and de Clercq (2013).

(14) The Tripartition



The tripartition I posit is similar to and inspired by the framework of negation posited in de Clercq (2013). de Clercq posits four classes of negators: quantifier, degree, focus, and polar (15), with each class of negator realizing different levels of internal structure.

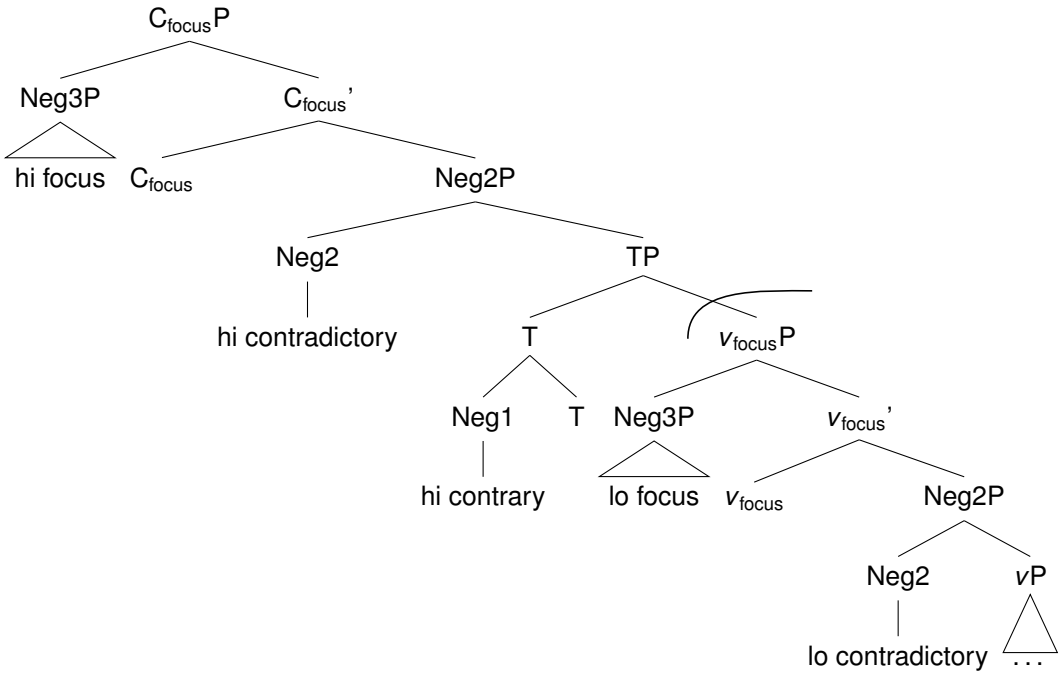
(15) The Internal Syntax of Negation (de Clercq, 2013)



de Clercq's quantifier, degree, and focus negators are similar to my contrary, contradictory, and focus negators in terms of both semantic import and internal structure. The terminological difference between quantifier and contrary and degree and contradictory negators is due to the expanded role that contrary and contradictory negators take on in my framework, to be discussed in chapter two. Polar negators in de Clercq's system, which impart sentential negation, are contradictory negators in this system. Each class of negator in my framework may mark either sentential or sub-sentential negation, and so de Clercq's categories of degree and polar negators, conveying sub-sentential and sentential contradictory negation respectively, are collapsed into one category in my framework. Similar to de Clercq's framework, negators of each class are associated with distinct projections in the clausal spine (16). The terms hi(gh) and lo(w) refer to negators merged above the *v*P domain (hi) or within the *v*P domain or in the extended projections of nouns and adjectives (lo). Lo contrary negators are only merged in the extended projection of adjectives and are thus left out of (16) as this diagram focuses on the extended projection of verbs (see chapter two for more on the syntax of lo contrary negators). The projections v_{focus}P and C_{focus}P are used henceforth to disambiguate between the two focus projections in the *v*P and CP domains of the clause (see Jayaseelan 2001, Butler 2003, and de Clercq 2013 for arguments for a *v*P-internal focus projection). The association of negation with v_{focus}P is taken from de Clercq

(2013) for her analysis of *v*P-internal focus negation[7] and C_{focus}P from Holmberg (2016) for his analysis of negative response particles, equivalent to my class of hi focus negators. The arc in (16) indicates a phase boundary.

(16) Negation and the Clausal Spine



I show in forthcoming chapters that bipartite negation in Sgaw Karen realizes a hi and lo contradictory negator, in French a hi contrary and lo focus negator, and in Ojibwe a focus and contradictory negator, this language not distinguishing between hi and lo variants of negators for reasons discussed in chapter six.

To summarize, the negators taking part in bipartite negation in the languages under discussion vary in terms of optionality, interpretability (whether or not the negator can stand alone and impart negation), embeddability, function (contrary, contradictory, or focus), internal structure, and the merge position in the clausal spine. Discussion of these facts forms the bedrock of much of the analysis for bipartite negation in each language.

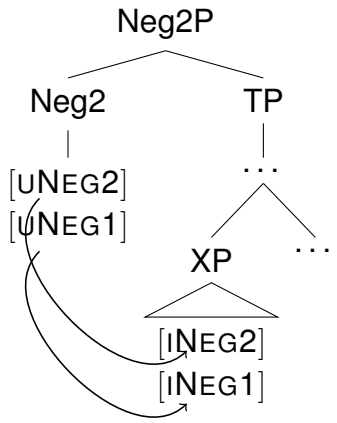
Sentential negation is imparted by hi contradictory negators merged in Neg2P

[7] See also Butler 2003 for a similar idea related to negation scoping under deontic modals.

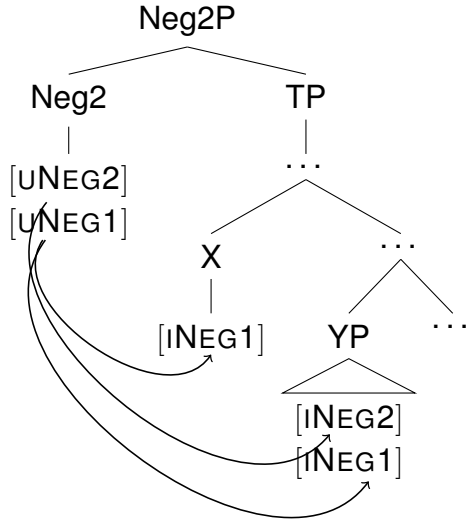
immediately dominating TP (16). Hi contradictory negators bear a set of two features, [NEG1] and [NEG2], the features being either uninterpretable or interpretable for negation. I assume the biconditional of valuation and interpretability (Chomsky 2001, contra Pesetsky and Torrego 2007) such that a constituent bearing an uninterpretable feature does not impart the semantics of that feature and in turn must occur in a probe-goal agreement relation with another constituent interpretable for that feature. When either feature on the hi contradictory negator is uninterpretable for negation, the negator probes its c-command domain to find a constituent bearing the requisite interpretable feature.

Both [NEG1] and [NEG2] must be interpretable for negation together to impart hi contradictory/sentential negation. This fact has important consequences primarily for my analysis of French bipartite negation in chapter four. The framework is set up such that an uninterpretable feature can be valued by more than one interpretable goal (18) (see Nevins 2007, 2011 for a similar idea for phi-agreement). Probing ends not when the uninterpretable feature finds its first goal, but when it reaches a either the specifier position of v_{focus}P or a phase boundary. The framework is set up such that one (17), two (18), or even three or more constituents participate in agreement with the hi contradictory negator imparting sentential negation.

(17) One Constituent Values Both Features of Neg2^0



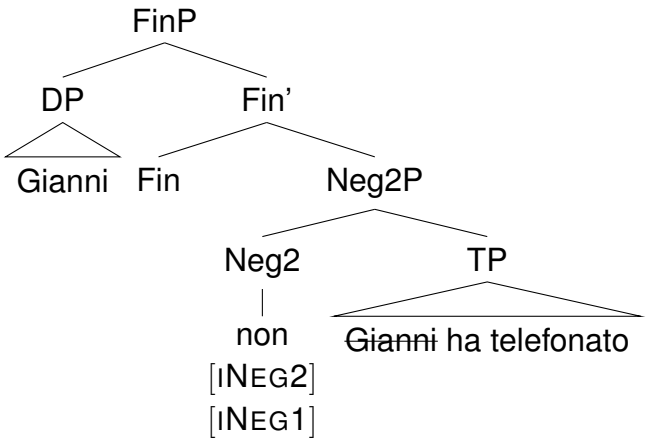
(18) Two Constituents Value Neg2^0



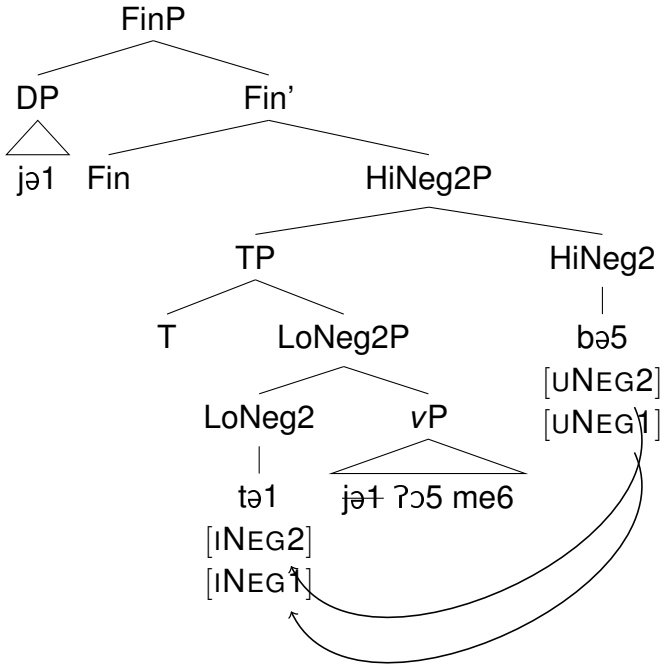
One agreement chain outputs to one instance interpretability, even if multiple instances of an interpretable feature exist in that agreement chain (contra Zeijlstra 2004, 2008, Kramer and Rawlins 2009, 2010, Penka 2011, Holmberg 2016, among others). This facet of the framework makes the important prediction that multiple interpretable negators can work in tandem to impart one instance of semantic negation, which has important consequences for my analysis of French and potential negative tripling and quadrupling discussed in chapter four. In chapters two, three, and four, I discuss scenarios where two tautoclausal interpretable negators do not exist in an agreement chain and cancel each other out, a case of double negation.

Hi contradictory negators may be either overt as in Italian (19) and Sgaw Karen (20) or covert as in English (21). Furthermore, overt hi contradictory negators may be either interpretable or uninterpretable for negation, as in Italian (19) and Sgaw Karen (20) respectively. I discuss why subjects appear in Spec,FinP and where *do* is generated with do-support in chapter two.

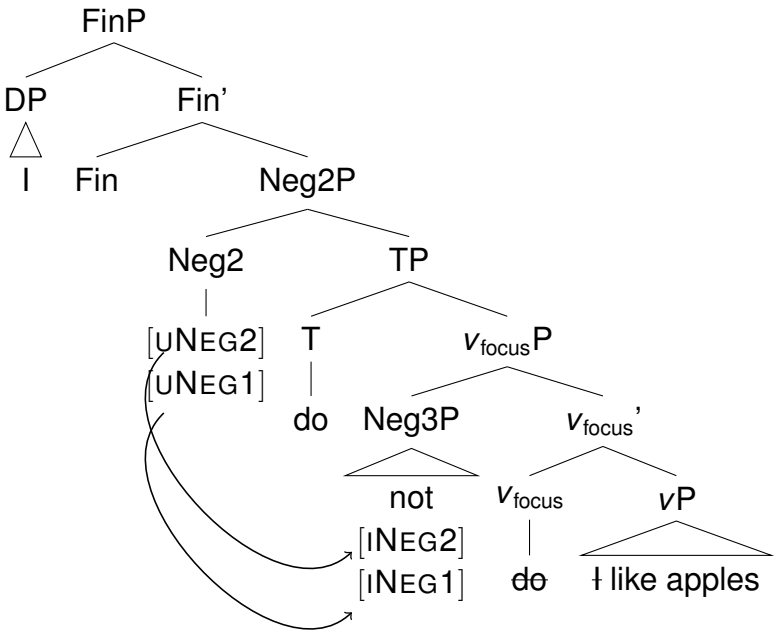
(19) Gianni **non** ha telefonato. [Italian]
Gianni NEG has called
'Gianni didn't call.' Zeijlstra (2008, p. 2)



(20) jə1 **tə1** ʔɔ5 me6 **bə5**
I NEG eat rice NEG
'I don't eat rice.'



(21) I do **not** like apples. [English]

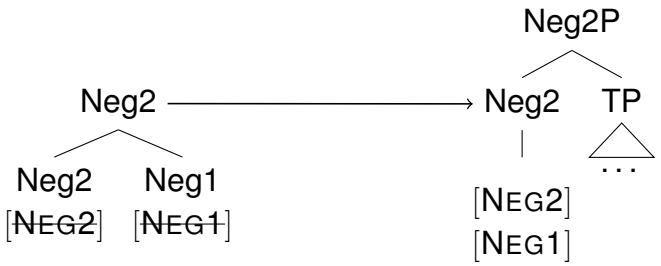


This framework does not allow for the existence of covert and interpretable negators (predicted to be possible in frameworks such as Zeijlstra 2004, 2008). The existence of such negators are problematic for reasons discussed in Penka (2011) and Biberauer and Zeijlstra (2012) and set aside there for future research. For example, allowing for covert and interpretable negators would predict languages where sentences bearing no negative morphology impart the semantics of negation and would be ambiguous with a positive interpretation since positive sentences do not bear negative morphology. For example, in such a hypothetical language, stating the equivalent of 'John walked down the street' in English could have either a positive or negative reading, a prediction not borne out by any language that I am aware of.

The existence of probe-goal agreement is important for my analyses of Sgaw Karen and French bipartite negation. I show for negative polarity emphasis in English in chapter five and Ojibwe bipartite negation in chapter six that a second syntactic mechanism is necessary to account for two negators working in tandem to impart one instance of negation, namely NegP splitting, similar to but distinct

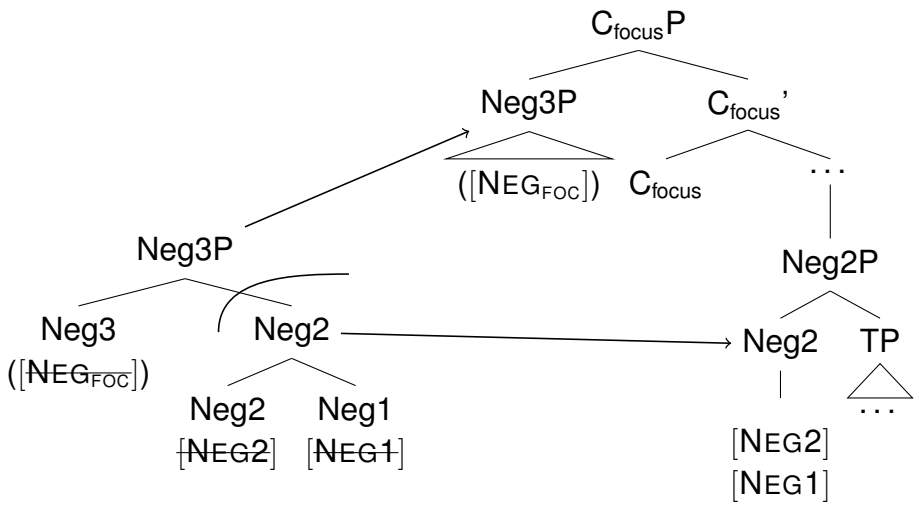
from how this mechanism is employed in Poletto (2008) and de Clercq (2013). NegP splitting as the term is employed here refers to the phenomenon where a single extended projection of negation is built in a separate derivational workspace from the clausal spine. The single extended projection of negation is built to Neg2^0 and is merged with TP in the clausal spine, resulting in the projection of Neg2P. [NEG1] and [NEG2], which may be either uninterpretable or interpretable for negation at this point in the derivation, abstracted away from in (22), are transferred to the clausal spine.

(22) Neg2^0 Merges with TP



The extended projection of negation is then built to Neg3P. Neg3^0 may or may not bear a privative feature [NEG$_{FOC(US)}$]. When Neg3^0 bears this feature, negation targets an antecedent and imparts the semantics of negative polarity emphasis, to be discussed in chapters five and six. When Neg3^0 does not bear this feature, there is no added semantic effect, and the sentence realizes canonical negation, as with bipartite negation in Ojibwe, to be discussed in chapter six. Neg3P is then merged in Spec,C$_{focus}$P.

(23) Neg3P Merges in Spec,C$_{focus}$P

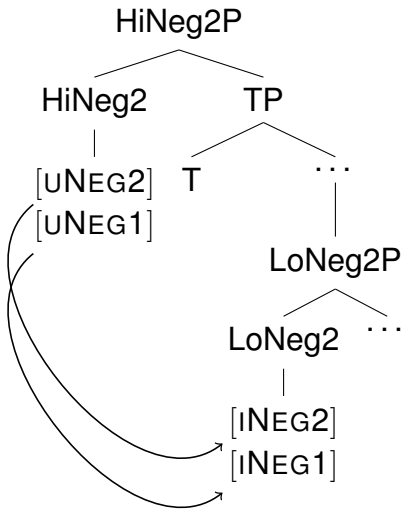


Neg3P in (23) contains the full syntactic structure of Neg3P in the separate derivational workspace, including Neg2^0 and Neg1^0, but does not contain the features that have been transferred over to Neg2^0 in the clausal spine necessary for imparting negative polarity. The 'splitting' nature of this operation deals primarily with how features from one extended projection of negation are merged in different places in the clausal spine. With negative polarity emphasis, Neg2^0 in the clausal spine marks negative polarity, and the [NEG$_{FOC}$] feature marks that negative polarity targets an antecedent. In all instances where [NEG$_{FOC}$] is not realized and NegP splitting occurs, it is specifically to check off an [EPP$_{NEG}$] feature borne by $C_{focus}{}^0$, as shown for Ojibwe in chapter six. I show that invoking NegP splitting is necessary to capture the single instance of negation between *no* and *not* for English negative polarity emphasis in (6) and *gaawiin* and *-siin* for Ojibwe bipartite negation (8) in chapters five and six respectively, where the arguments for NegP splitting are discussed in greater detail.

The framework predicts at least three kinds of bipartite negation. The first type of bipartite negation, exemplified by Sgaw Karen (covered in chapter three), consists of Neg2P (hi contradictory negation) with an overt Neg2^0 bearing [uNEG1] and [uNEG2] occurring in an agreement chain with a lo contradictory negator bearing [iNEG1] and [iNEG2]. This analysis of the first type of bipartite negation bears

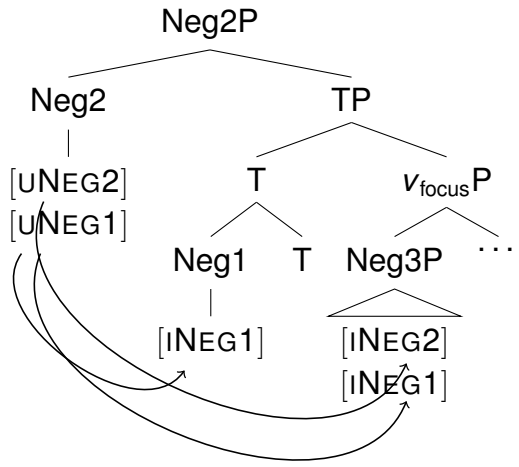
a resemblance to the agreement analysis of Biberauer (2007) for bipartite negation in Afrikaans, the primary difference coming down to the feature composition of the negator imparting sentential negation. I discuss Biberauer (2007) more in chapter three. The terms HiNeg2P and LoNeg2P in (24) are used to distinguish the two Neg2P's from each other. This convention is used only for my analysis of Sgaw Karen in chapter three.

(24) Bipartite Negation - Type One



The second type of bipartite negation, exemplified by registers of French where the negative constituent *ne* is still active (covered in chapter four), consists of a covert Neg2^0 bearing [uNEG1] and [uNEG2] occurring in an agreement chain with two constituents, a hi contrary negator bearing [iNEG1] merged with T^0 and a second negative constituent bearing [iNEG1] and [iNEG2]. [uNEG1] is valued by two constituents and [uNEG2] is valued by one constituent.

(25) Bipartite Negation - Type Two

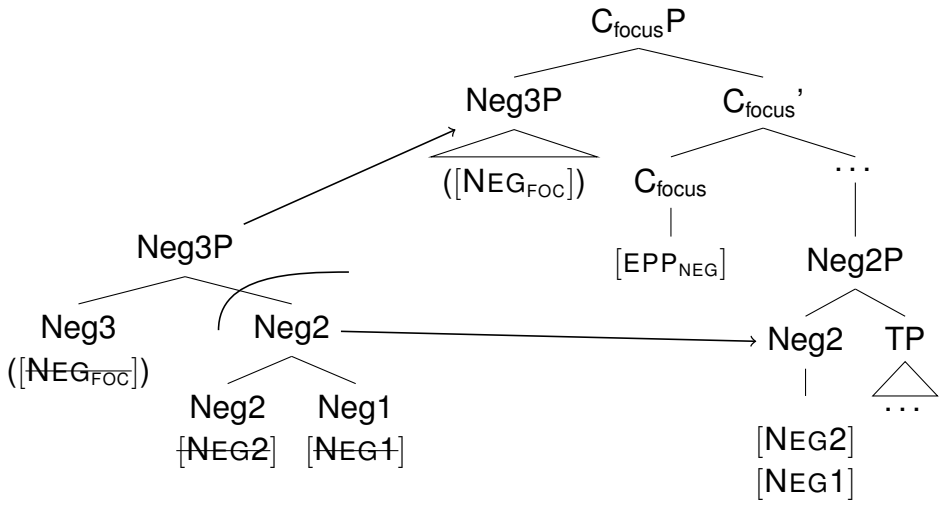


The arrangement in (25) is really more like tripartite negation as there are three constituents taking part in sentential negation, one of them null ($Neg2^0$). I reserve the term bipartite negation for two overt constituents taking part in bipartite negation.

The third type of bipartite negation, exemplified by Ojibwe (covered in chapter six), is derived via NegP splitting whereby Neg3P and $Neg2^0$ are merged in Spec,C_{focus}P and with TP respectively. In this configuration, $C_{focus}{}^0$ bears an [EPP_{NEG}] feature specifically when sentential negation is present in the numeration to ensure that a negator is merged in Spec,C_{focus}P[8]. The reason for positing an [EPP] feature will be covered in chapter six, this feature being present only in languages like Ojibwe. $Neg2^0$ is merged in the clause to mark negative polarity. The feature [NEG_{FOC}] is realized when Neg3P targets an antecedent proposition. (23) is repeated in (26).

(26) Bipartite Negation - Type Three

[8]The convention of invoking the [EPP_{NEG}] feature to ensure that negators are merged in the clausal spine is also used in the framework of de Clercq (2013).



In forthcoming chapters, I discuss the syntactic and semantic consequences related to the interpretability, optionality, embeddability, function, and clause position of the negators taking part in these three types of bipartite negation. I also spend time in chapters four, five, and seven speculating on how this framework can capture negative tripling and even quadrupling cross-linguistically, including the multiple exponence of negative clitics in Italian (Manzini and Savoia, 2008) (chapter four), the multiple exponence of n-words in West Flemish (Haegeman, 1995) (chapter four), negative polarity emphasis in French (Authier 2013, Poletto and Zanuttini 2013) (chapter five), and negative tripling in Lewo, a language of Vanuatu (Early, 1994) (chapter seven).

1.2 Organization of Dissertation

This dissertation is organized as follows. Chapter two explicates the framework I adopt for negation in general. I focus my attention on broader aspects of negation as this is a necessary first step in deriving the three types of bipartite negation shown in this thesis. I give arguments that negation is syntactically complex and provide parallels among negators, pronouns, and determiners to give and motivate a tripartition of negators parallel to Cardinaletti and Starke (1999) for pronouns

and Panagiotidis (2000) for determiners. I discuss the semantic import of the three classes of negators and present diagnostics for each class that will be used in forthcoming chapters. I argue that sentential negation is always interpreted in the TP domain (Zanuttini 1994, Holmberg 2001, 2016, de Clercq 2013) and is syntactically represented as the head of Neg2P, the head of which is either overt or null. I explain how syntactic agreement and NegP splitting work in greater detail.

Chapter three discusses bipartite negation in Sgaw Karen. I show that in this language the two constituents participating in bipartite negation exist in a probe-goal agreement relation. Of the two constituents, one is uninterpretable and the other is interpretable for negation. I show that the consequences of this relationship are such that the structurally higher negator has no semantic import on its own, as evidenced by the fact that it cannot impart negation on its own, and that it is optional, where negation can be conveyed solely by the structurally lower, interpretable negator. I draw parallels between bipartite negation in Sgaw Karen and Afrikaans and show that the two languages show a number of similarities.

Chapter four discusses bipartite negation in French. I argue that sentential negation is interpreted in a null Neg2^0 in French. Bipartite negation is the result of an agreement relation, similar to but distinct from Sgaw Karen. The two negators, *ne* and *pas*, are such that the former is a contrary negator (Schapansky, 2002, 2010) and the latter a focus negator (de Clercq, 2013). The feature compositions of *ne* and *pas* are such that *ne* alone only values one of the two features of Neg2^0, while *pas* can value both on its own or in tandem with *ne*. I discuss the syntax and semantics of n-words to explain when double negation occurs in French. French contrasts with Sgaw Karen in that both negators participating in bipartite negation are interpretable for negation (albeit different kinds of negation), while in Sgaw Karen only one of the two negators is interpretable. I show that the optionality of *ne* in French is different from the optionality exhibited by the negator *bə5* in Sgaw

Karen.

Chapter five takes a detour and discusses negative polarity emphasis in English. The detour is necessary because I argue in the following chapter that bipartite negation in Ojibwe exhibits similar syntax to negative polarity emphasis in English and other languages. The primary focus of this chapter is to show that invoking NegP splitting is necessary to account for the single instance of negation with negative polarity emphasis. This is due to the fact that both negators are interpretable for negation, as neither negator must exist in an agreement relation with a structurally lower negator. In support of the argument that both negators are interpretable for negation, I discuss and give an analysis of negative polarity reversal, where a negator is used to reverse an antecedent proposition's polarity from negative to positive. I discuss why a syntactic agreement analysis of negative polarity emphasis and negative polarity reversal is inadequate, or at least, in order to get it to work, one would have to necessarily complicate the syntactic agreement operation and invoke that certain negators are ambiguous in interpretation. In this chapter I argue against a hypothetical account where a negator heads a Pol(arity)P (or ΣP), the head of which can impart either negative or positive sentential polarity (similar to Laka 1990, Kramer and Rawlins 2009, 2010, Holmberg 2016, among others).

Chapter six discusses bipartite negation in Ojibwe. This chapter builds off of discussion in the previous chapter and shows that bipartite negation in this language exhibits the syntax of negative polarity emphasis. In motivating my analysis of bipartite negation in the language, I argue that what is known in the Algonquian literature as the conjunct order is more specifically a type of embedded clause that resists main clause phenomena (Hooper and Thompson, 1973) and analyze the conjunct order as lacking a focus projection (Haegeman, 2003, 2006). I speculate on the diachrony of negation in Ojibwe and compare Ojibwe to French in order to

show how the source of bipartite negation in Ojibwe is different. I end the chapter by comparing bipartite negation in Ojibwe to the Scandinavian double definite construction (see Julien 2004 for an overview) and show that the two phenomena exhibit a number of similarities.

Chapter seven concludes the dissertation. I recap the typology of bipartite negation exhibited by Sgaw Karen, French, and Ojibwe, summarize some of the main claims of the dissertation, and discuss avenues for future work.

Chapter 2

The Framework

2.1 Introduction

This chapter describes and motivates the framework of negation I adopt in this thesis. The proximal goal of this chapter is to model the phenomenon of negation in general, the emphasis being on sentential negation. The ultimate goal of this chapter is to explain how two negative constituents output to one instance of logical negation (more specifically, contradictory negation), which is the primary goal of this thesis.

I argue that sentential negation is generated in a dedicated NegP, named Neg2P for reasons that will become clear in §2.2, merged immediately above TP. This is the only location where sentential negation is interpreted (similar to Zanuttini 1994), the position of Neg2P being invariant cross-linguistically. I argue against realizing a PolP (or ΣP in some frameworks) such that PolP can impart either negative or positive polarity. I hold off on making these arguments until chapter five. I will argue in chapter five that constituents marking positive polarity (for example, *yes* in English) are adverbs merged in Spec,C_{focus}P.

The chapter is organized as follows. §2.2 discusses phenomena related to

negation to be discussed throughout the thesis. The primary purpose of this section is to clarify what I mean by specific terminology and to provide diagnostics. §2.3 presents the tripartition of negative elements discussed in chapter one and provides diagnostics for the syntax and semantics of each class of negative element. Parallels are drawn among the tripartition of negative elements, pronouns, and determiners to motivate the tripartition. In §2.4 I discuss where classes of negators are merged in the clausal spine, focusing primarily on sentential negation. §2.5 offers an example of the framework as applied to English, with discussion of Italian presented as well for a comparison, primarily to get the reader familiar with how this framework works and to motivate some proposals made in §2.3 regarding the syntax of focus negators. I motivate an analysis of do-support where *do* is base-generated in the head of a focus projection in the *v*P domain primarily to resolve issues regarding how this framework applies to English negation, noting that I do not get into the motivations for this analysis of do-support in depth as this is beyond the scope of this thesis. A consequence of this analysis is that *not* in English is an adverb and not a head (following Ernst 1992, contra Potsdam 1997, among other scholars in both camps), thus providing a solution to a long-standing issue regarding the X^0/XP status of *not* in English (see Zeijlstra 2008, Repp 2009 for overviews of this debate). §2.6 discusses how this framework captures double negation (*duplex negatio affirmat*) so as to demonstrate specifically how two negators may cancel each other out instead of imparting one instance of negation. §2.7 concludes the chapter.

2.2 Important Terminology

This section defines and provides diagnostics for a number of phenomena related to negation to be discussed throughout this thesis. I devote a subsection to each

issue.

2.2.1 Contrary and Contradictory Negation

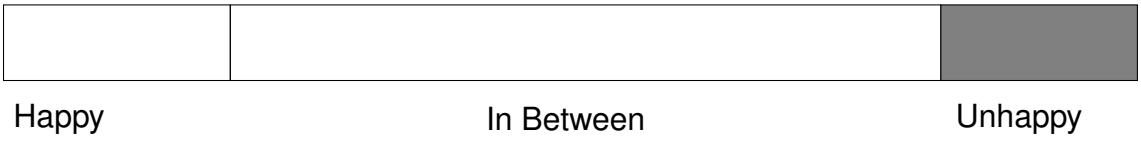
Negation can be divided into two subtypes, contrary and contradictory negation (see Horn 1989, de Clercq 2013, Béziau 2016). Contraries are two propositions such that the two propositions cannot be simultaneously true, but can be simultaneously false. The prefixes *un-* and *in-* in English impart contrary negation and create contrary opposition between an adjective and its negative-prefixed counterpart.

Table 2.1: Contraries

happy	˜	unhappy
tidy	˜	untidy
kind	˜	unkind
capable	˜	incapable

One cannot be both happy and unhappy at the same time, but it is possible to be neither, essentially somewhere in between the two extreme ends of the scale.

Figure 2.1: Contrary Negation



Two propositions are contradictories if they cannot be simultaneously true nor simultaneously false. The prefix *non-* in English imparts contradictory negation and creates a contradictory opposition between a predicate term and its negative-prefixed counterpart.

Table 2.2: Contradictories

human	˜	nonhuman
toxic	˜	nontoxic
American	˜	non-American

One cannot be both human and nonhuman, and it is also the case that one cannot be neither (you have to be one or the other). Contradictory negation thus sets up a dichotomy (Béziau, 2016).

Figure 2.2: Contradictory Negation

Human Nonhuman

Contrary negation obeys the law of contradiction (LC), but not the law of the excluded middle (LEM) (Horn, 1989). LC states that a proposition and its negation cannot both be true at the same time.

(1) Law of Contradiction (LC)

$\neg(p \,\&\, \neg p)$

adapted from Russell (1940, p. 259), cited in de Clercq (2013, p. 34)

LEM states that either the proposition or its negation must be true, basically excluding any middle ground between a proposition and its negation.

(2) Law of the Excluded Middle (LEM)

$p \vee \neg p$

adapted from Russell (1940, p. 259), cited in de Clercq (2013, p. 34)

Contradiction, like contrariety, obeys LC, but unlike contrariety obeys LEM as well (Horn, 1989). Thus, a primary diagnostic to differentiate between contrary and

contradictory negation is whether or not LEM is obeyed.

It is possible to stack a contradictory negator on a contrary negator or a negative adjective (bad, sad, dirty, etc., see Horn (1989, p. 276) for discussion on negative adjectives)[1] and obtain a semantic effect known as litotes (see discussion in Horn 1989 and Horn 2017). Litotes imparts a weakly positive semantics (3).

(3) Litotes van der Wouden (1994, p. 215)

a. It is *not unwise* to take precautions. = 'Rather wise'

b. She does*n't* look *too bad*. = 'Quite good'

In (3-a) the speaker of the sentence is asserting that 'it' is neither wise nor unwise, but somewhere in the middle. The same applies to (3-b) where the subject looks neither good nor bad, but somewhere in between. Contradictory and contrary negators are distinguished in this construction by the fact that the contradictory negator precedes the contrary negator (see also discussion on negative stacking in de Clercq 2013). For discussion on how contradictory negation stacking on contrary negation cashes out to the weakly positive semantics in (3), see §5.3 in Horn (1989).

Both contradictory and contrary negation may associate with deontic modality, but only contradictory negation associates with epistemic modality (see Horn 1989 and Schapansky 2002). *Not* in English imparts contradictory negation (and also focus negation, more on this in §2.2.2) and *un-* contrary negation. Both *not* (4-a) and *un-* (4-b) associate with a deontic reading of 'necessary.'

(4) a. It's not necessary to go.

b. It's unnecessary to go.

The speaker in both (4-a) and (4-b) asserts that the speaker does not have to feel

[1] Negative adjectives are argued to be suppletive contrary negations of words like good (bad = ungood), happy (sad = unhappy), clean (dirty = unclean), etc., in de Clercq (2013).

obligated to go. When *necessary*, or *necessarily* as in (5), is used in a weather predicate, only the epistemic or logically possible reading obtains. In this environment, only contradictory *not* is permissible (5-a). Contrary *un-* is not possible here as it does not associate with epistemic modality.

(5) a. It's not necessarily going to rain.
b. *It's unnecessarily going to rain.

Contrary and contradictory negation differ also in that the latter, but not the former, may associate with metalinguistic negation (see Horn 1989, Schapansky 2010). Metalinguistic negation refers to the rejection of 'the content or form of a previous utterance . . . on any grounds whatever, including the implicatures . . . ' (Horn, 1989). Contradictory (6-a), but not contrary negation (6-b), permits metalinguistic negation in English.

(6) Schapansky (2010, p. 111)
a. She is not happy, she is ecstatic.
b. *She is unhappy, she is ecstatic.

I discuss similar facts for contrary and contradictory negation related to both modality and metalinguistc negation for French in chapter four based on facts discussed in Schapansky (2002, 2010). In §2.3 I discuss the internal syntax of contrary and contradictory negation, based on discussion in de Clercq (2013), and in §2.4 I discuss where contrary and contradictory negators are merged in the clausal spine.

To recap this section, contrary negation obeys the Law of Contradiction, but not the Law of the Excluded Middle, associates with deontic modality, and cannot impart metalinguistic negation. Contradictory negation obeys both the Law of Contradiction and the Law of the Excluded Middle, associates with both deontic and epistemic modality, and can impart metalinguistic negation. This section only gives

a cursory overview of some diagnostics of contrary and contradictory negation. For an in-depth discussion on contrary and contradictory negation, see Horn (1989).

2.2.2 Focus Negation

Focus negation is a form of contradictory negation that targets antecedent constituents, be they propositions or sub-propositional elements. The definition here is similar to the definition given to the class of focus negators in de Clercq (2013), although it differs in that focus negators may also modify propositions. When focus negators modify sub-propositional elements, they take part in what is known as contrastive negation (see Horn 1989 and McCawley 1991). Contrastive negation takes the form of the 'not *x*, but *y*' construction, this diagnostic taken from de Clercq (2013).

(7) I saw **not** JOHN, but BILL.

(8) **not** JOHN, but BILL

In (7) and (8) only the sub-propositional constituent *John* is modified. Contrastive negation can be done within a sentence (7) or as a fragment (8). In each sentence, *John* is the antecedent, and contrastive negation serves as a correction[2].

No in English, like *not*, is also a focus negator, distinguished from *not* by its base-merge position (see §2.4). *No* targets antecedent propositions in negative responses (9).

(9) a. A: Did John go to the store?

B: **No** = $\neg p$ (John did not go to the store)

I argue in chapter five that *no* in English is responsible for marking antecedent negation, negative sentential polarity being marked by a null sentential head in

[2]This is equivalent to the semantics of corrections discussed in Kramer and Rawlins (2010) and references cited therein.

agreement with the structurally lower *not*, the null head and overt *not* being in the elided complement of *no*.

As noted by de Clercq (2013), certain languages have a dedicated negator used for both contrastive negation and negative responses, which supports why I choose to collapse contrastive negation and negative response particles (*no* in English) into a broader category of focus negation. In Greek *oxi* is used as a contrastive negator (10) and is also used with negative responses (11). In Greek the negator used for sentential negation is *dhen*, and the lo contradictory and contrary negators are *mi-* and *a-* respectively (de Clercq, 2013, p.40)[3].

(10) Podhosferistis ine **oxi** ithopios
Football player be.PRES.3SG NEG actor
'He is a football player and not an actor.'

adapted from de Clercq (2013, p. 42)

(11) Q: Did you see any linguists at the meeting?
A: **Oxi**, *dhen idha kanenan*. 'No, I didn't see anybody.'

Giannakidou and Yoon (2016, p. 545)

Negative polarity particles, constituents that are used to mark a negative reply to a question or assertion, among other uses to be discussed in chapter five[4], are subsumed under the broader category of focus negators here. Although de Clercq mentions the facts related to *oxi* above, she does not subsume negative polarity particles under her category of focus negators as focus negators for her only appear in the *v*P domain of the clause.

In §2.2.4 I discuss the phenomenon of negative polarity emphasis, a form of negation which targets an antecedent proposition. I hold off on discussion on this

[3] In (11) the question is in English and the answer in Greek, as is presented in Giannakidou and Yoon (2016).

[4] See discussion in Kramer and Rawlins (2009), Farkas and Bruce (2010), Farkas and Roelofsen (2012), Krifka (2013), Holmberg (2016), and Wiltschko (2017) for discussion on response particles both positive and negative. See also chapter five of this thesis.

phenomenon until then as I wish to contrast this phenomenon with emphatic negation, to be discussed in the next subsection. I argue in chapter five that negative responses involve an elided negative polarity emphasis construction. I show in chapter five that *no* can also be used as a contrastive negator targeting sub-propositional constituents similar to (7) and (8).

2.2.3 Emphatic Negation

I adopt the definition of emphatic negation from Larrivée (2014). Emphatic negation corresponds to an 'unmitigated assertion' (see also Israel (2011)), an assertion which cannot be 'hedged or toned down.' For example, in French, the addition of *rien du tout* does not permit any exceptions as evidenced in (12-a), contrasting with the minimally different (12-b).

(12) adapted from Larrivée (2014, p. 121)

a. %J'ai dormi rien du tout. Peut-être un petit peu, mais pas beaucoup.
I slept NEG at all. Maybe a little, but NEG much
'I slept not at all. Maybe a little, but not much."

b. J'ai pas dormi. Peut-être un petit peu, mais pas beaucoup.
I NEG slept. Maybe a little, but NEG much
'I didn't sleep. Maybe a little, but not much."

The same facts can be extended to English in (13).

(13) a. %I didn't sleep at all. Maybe a little, but not much.

b. I didn't sleep. Maybe a little, but not much.

Chatzopoulou (2013) argues that intensification like the kind in (12) and (13) involves quantification of degrees (see also references cited therein). (12-a) and (13-a) assert that the amount of sleeping is untrue for any instance down to the minimal quantity of sleeping. This is similar to the historical use of the clausal negators *pas* in French and *mica* in Italian, both originally signifying minimal el-

ements co-occurring with negation and having the import such that the event of the sentence does not hold down to the absolute smallest degree (*pas* meaning 'step' and *mica* meaning 'crumb,' see Hansen and Visconti (2012) and references cited therein). Emphatic negation as a diachronic source for bipartite negation is discussed for French in chapter four.

As noted in Larrivée (2014), the term 'emphatic negation' refers to multiple related phenomena. Emphatic negation is used also to refer to the phenomenon of negative polarity emphasis, to which I now turn to.

2.2.4 Negative Polarity Emphasis

Negative polarity emphasis is the phenomenon whereby a speaker conveys that an antecedent proposition is false with a high degree of certainty (Poletto and Zanuttini, 2013). I discuss this phenomenon in depth for English in chapter five and give a cursory overview here. The term refers to a construction in which two negators in tandem, one being the constituent used to mark a negative response, also known as a negative polarity particle or hi focus negator in the framework here, and the other used to signal sentential negation.

(14) a. A: John arrived late.

b. B: **No** he did **not**!

(15) adapted from Poletto and Zanuttini (2013, p. 127)

a. A: È arrivato in ritardo alla riunione, come sempre.
is arrived in delay to the meeting as always
'He arrived late to the meeting, as always'

b. B: **No** che **non** è arrivato in ritardo!
NEG that NEG is arrived in delay
'He DID NOT arrive late!'

In (15-b) and (14-b), the negative sentences act as rejoinders to the antecedent

positive assertions in (15-a) and (14-a) respectively. The negative sentence realizes two negators in tandem, the negative polarity particle *no* in both English and Italian, and the marker signaling sentential negation being *not* in English and *non* in Italian, the status of *not* and *non* to be discussed in §2.5.

As noted in Larrivée (2014), negative polarity emphasis (he does not use this term, but gives comparable examples) is often conflated with emphatic negation, even though negative polarity emphasis differs from emphatic negation. Larrivée notes that emphatic negation does not necessarily target an antecedent proposition in the way negative polarity emphasis (he uses the term activated negation) does. Note the following constructed dialogue in English (16).

(16) (Speaker A and Speaker B have not yet discussed how Speaker B has slept during their vacation)
Speaker A: How was your vacation?
Speaker B: Well, I didn't sleep at all on the first night, but slept pretty well on the other nights.

Speaker B employs what I term emphatic negation (and not negative polarity emphasis) even though the topic of sleep has not yet been discussed in this conversation, showing that emphatic negation does not have to target an antecedent proposition like negative polarity emphasis does. That negative polarity emphasis must target an antecedent proposition will be used henceforth for diagnosing this phenomenon.

I use three primary diagnostics to establish negative polarity emphasis, two of which are taken from Poletto and Zanuttini (2013)[5]. First, the hi focus negator

[5]The term negative polarity emphasis is used in more than one way. Breitbarth et al. (2013) refer to constructions featuring both *en* and *nie* in West Flemish as exhibiting negative polarity emphasis, even though none of the diagnostics proposed here hold for these constructions. I employ the term negative polarity emphasis in a specific way in this thesis, specifically to constructions passing the three diagnostics listed here.

used with negative polarity emphasis is also used to mark a negative response as in both English (17) and Italian (18). (5) is repeated in (17).

(17) a. A: Did John go to the store?

b. B: **No** = $\neg p$ (John didn't go to the store)

(18) adapted from Poletto and Zanuttini (2013, p. 125)

a. A: È poi arrivato Gianni?
is then arrived Gianni
'Did Gianni arrive in the end?'

b. B: **No**, non è arrivato.
no NEG is arrived
'No, he didn't.'

Second, as noted in Poletto and Zanuttini (2013) for Italian, extended to English here, negative polarity emphasis resists embedding[6] (20).

(20) *If **no** it does**n't** rain, you must water the flowers.

Third, and also noted in Poletto and Zanuttini (2013) for Italian, extended to English here, lexical material not in the antecedent proposition cannot be added to the negative polarity emphasis construction (21-b).

(21) a. A: John$_i$ plays hockey.

b. B: **No** he$_i$ does **not** (play hockey)!

c. B: ***No** he$_i$ does **not** play hockey in Canada!

(22) adapted from Poletto and Zanuttini (2013, p. 126)

[6]Poletto & Zanuttini do not give any examples of negative polarity emphasis constructions resisting embedding, although they note that polarity emphasis in general resists embedding and give the following positive polarity emphasis construction resisting embedding (19).

(19) *Credo che/di sì che viene.
believe that/of yes that comes
Intended: 'I believe he will so come.' adapted from Poletto and Zanuttini (2013, p. 138)

a. A: È poi arrivato Gianni?
   is then arrived Gianni
   'Did Gianni arrive in the end?'

b. B: **No** che non è arrivato.
   no that NEG is arrived
   'He did not!'

c. B: ***No** che non è puntuale.
   no that NEG is punctual
   'He did not get here on time!'

The first two diagnostics are important for discussion in chapter six where I establish that Ojibwe bipartite negation exhibits a semantically-bleached form of negative polarity emphasis. The last diagnostic is used to establish facts related to negation and ellipsis in chapter five. The fact that *no* in both English and Italian marks a negative response ((17) and (18)) and is used with negative polarity emphasis is discussed in chapter five. Furthermore, negative polarity emphasis as a potential diachronic source for bipartite negation is discussed for Ojibwe in chapter six.

2.2.5 Double Negation

Realizing two tautoclausal contradictory negators has the effect of double negation or mutual cancellation (two negatives equals a positive, see discussion in Horn 1989). I use the term double negation henceforth for this phenomenon. In Western Armenian, double exponence of the negative prefix *tʃ(ə)* renders the sentence positive (Khanjian, 2010).

(23) **tʃə**-bidi **tʃ**-ude-m [Western Armenian]
NEG-will NEG-eat-1SG
'I will not not eat' = 'I will eat' Khanjian (2010, p. 194)

In some languages the co-occurrence of a contradictory negator and an n-word has the effect of the two constituents cancelling each other out, as in Dutch (Zeijlstra,

2008).

(24) Jan belt **niet niemand** [Dutch]
Jan call NEG nobody
'Jan doesn't call nobody' = 'Jan calls somebody' Zeijlstra (2008, p. 2)

In English and in other languages, flanking a possibility modal ($\diamond$) with two contradictory negators results in a positive sentence with the logical dual[7] of $\diamond$, the necessity modal $\Box$ (see Horn 1989, p. 220).

(25) I ca**n't not** go there. = I must go there. $\neg\diamond\neg = \Box$

I discuss examples similar to (25) in chapter three for Sgaw Karen.

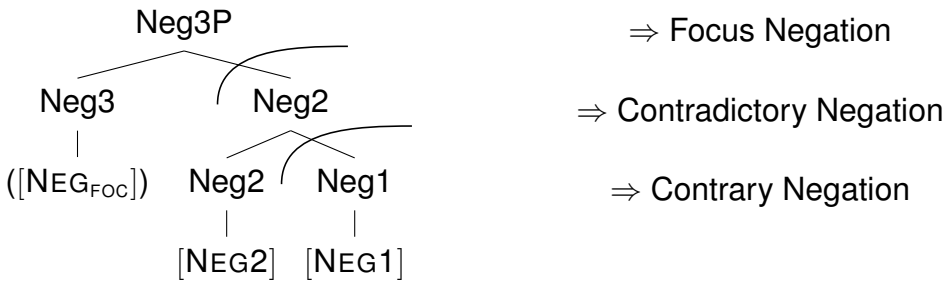
2.3 The Tripartition of Negative Elements

I define here three classes of negators: contrary, contradictory, and focus. The semantics of contrary, contradictory, and focus negation were discussed in §2.2.1-§2.2.3. These classes of negators are divided along a tripartition in a similar fashion to the first three classes of negators in de Clercq (2013). Contrary negation (corresponding to Neg1^0, the numbering convention for naming negative phrases borrowed from Zanuttini 1997 and de Clercq 2013) is the most primitive form of negation and projects the least amount of syntactic structure. Contradictory negation is introduced by a higher syntactic projection (Neg2^0) immediately dominating the projection hosting contrary negation, and focus negation at a projection (Neg3^0) immediately dominating contradictory negation. Following ideas presented in de Clercq (2013), Neg1^0 and Neg2^0 both bear a feature for negation [NEG1] and [NEG2] respectively. [NEG1] on its own imparts contrary negation, and [NEG1] and

[7] Following Horn (1989, p. 218), two operators A and B are duals if A unilaterally (one-way) entails B. In this case, necessarily(p) or $\Box(p)$ entails possibly(p)/$\diamond(p)$, but not vice versa. See also discussion in Barwise and Cooper (1981, p. 197) for duals as they pertain to quantifiers.

[NEG2] in tandem impart contradictory negation. Neg3^0 is capable of bearing a privative feature [NEG$_{FOC(US)}$] that signals that the contradictory negation imparted by [NEG1] and [NEG2] in tandem targets an antecedent. (26) is repeated from chapter one.

(26) The Tripartition



In order for sentential negation to take place, both [NEG1] and [NEG2] must be interpretable. It is not the case that only [NEG2] on its own can impart sentential negation. The importance of the parasitism of [NEG2] on [NEG1] is that a constituent bearing [iNEG1] can participate in the interpretation of sentential negation along with a constituent bearing [iNEG2], as is argued to be the case for French bipartite negation. [NEG$_{FOC}$] in turn is parasitic on both [NEG1] and [NEG2] to impart focus negation.

I now turn to discussing each class of negative element.

2.3.1 Contrary Negators

Contrary negators impart the semantics of contrary negation (see §2.1). Contrary negators come in hi and lo varieties. The prefixes *un-* and *in-* are examples of contrary negators merged in the low domain (henceforth lo contrary negators). I follow Schapansky (2002, 2010) in analyzing *ne* in French as a contrary negator. *Ne* is an example of a hi contrary negator merging with T^0 in this framework (following Péters 1999, Schapansky 2010). *Ne* is the only example of hi contrary negation

discussed in this thesis. The importance of analyzing *ne* as a hi contrary negator and the arguments for this analysis are given in chapter four when discussing bipartite negation in French.

Following arguments put forth in de Clercq (2013), contrary negators have the least amount of internal structure of all negative classes[8]. de Clercq notes that affixal contrary negators in English undergo morphophonological change, a process of phonological restructuring that requires adjacency to the stem with which it attaches (de Clercq 2013, p. 33, see also discussion in Horn 1989, p. 273-286).

(27) inhuman, ir-relevant, im-mature, il-logical, ... CONTRARY NEGATION

based on Zimmer (1964, p. 28-29), cited in de Clercq (2013, p. 32)

Ne in French, argued here to be a contrary negator, similarly undergoes prosodic restructuring (Martineau and Mougeon 2003, cited in Hansen 2009). It surfaces only as [n] in certain contexts. (28) is adapted from Rowlett (1998, p. 177)[9].

(28) Personne **n**'a avalé de poison.
nobody NEG has swallowed of poison
'No one swallowed any poison.'

Following arguments in Cardinaletti and Starke (1999), clitics are minimal elements and undergo prosodic restructuring as they merge directly with another constituent. I follow Chomsky (1995a) and Bošković (2002) in arguing that clitics are ambiguous between minimal and maximal projections. Both contrary affixes and clitics have the same minimal structure given in (29).

(29) Syntax of Contrary Negation

[8]Note that de Clercq analyses *ne* in French as imparting sentential negation, with an added requirement in her framework that it occur with *pas* in registers of French where *ne* is maintained. This is different from my analysis of *ne* imparting contrariety.

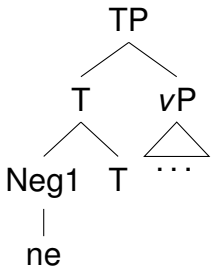
[9]The example was not intended to show prosodic restructuring in Rowlett's analysis.

Neg1 ⇒ Contrary Negation

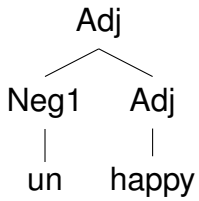
[NEG1]

Hi contrary negators merge with T^0 and lo contrary negators are affixes merging with adjectives[10]. French *ne* is an example of the former (30) and English *un-* the latter (31).

(30) *ne*



(31) *un-*



Recall that I use the terms hi and lo for all negative classes to distinguish between negators merging in the CP and TP domains (hi) and negators merging either in the *v*P domain or acting as constituent negation (lo). This term is not reserved for contrary negation.

That contrary negators have deficient internal structure, and specifically that they have less internal structure than contradictory negators, is evidenced by the fact that contrary negators derive from contradictory negators diachronically. This is the case for French *ne* (see Schapansky 2002, 2010). *Ne*, the sole sentential (contradictory) negator in Middle French, became prosodically weaker such that it became unstressed and often underwent schwa deletion (32) (Martineau and Mougeon 2003, cited in Hansen 2009)[11].

(32) Je **n**'sais **pas**.
I NEG know NEG

[10]The root may be categoriless as per the frameworks of Marantz (1997), Borer (2005), and others.

[11]The gloss in (32) is my own.

'I don't know.' adapted from Hansen (2009, p. 4)

The deficient syntactic structure of contrary negators mirrors the structure of pronominal clitics, argued to be deficient pronouns in Cardinaletti and Starke (1999). To provide an example of clitics being deficient pronouns, Cardinaletti and Starke argue that the third person clitic *s* in Olang Tirolese is a deficient form of the weak pronoun *es*. Pronominal clitics, like contrary negators, undergo phonological restructuring and must occur in the same prosodic domain as another constituent (33). The underlining in (33) indicates one prosodic domain[12].

(33) *French*

a. Jean voit Anna.

b. Jean voit **elle**.

c. Jean **la** voit.

Jean sees Anne/her (**la** = clitic, **elle** = strong pronoun)

adapted from Cardinaletti and Starke (1999, p. 55)

Further parallels can be drawn among contrary negators in this framework, pronominal clitics in Cardinaletti and Starke (1999), and expletive articles, argued to be the most deficient forms of determiners (in terms of realizing the fewest number of features[13]) in the tripartition of determiners argued for in Panagiotidis (2000). For example, contrary negators, pronominal clitics, and expletive articles all have no semantic import in certain environments, the latter class obligatorily so. Contrary negators such as *ne* in French and *un-*/*in-* in English do not have semantic import in certain instances. French *ne* has no added semantic import when it occurs with *pas*, as evidenced by the fact that it can be dropped without affecting

[12]Note that *lui* in French is possible in non-expletive contexts.

[13]Panagiotidis argues that expletive articles realize a feature he terms [φ], this feature being shared with definite articles, which also realize the feature [DEF(INITE)], and deictic pronouns, which realize the features [DEIC(TIC)], [DEF], and [φ].

the meaning of the clause. This holds for registers of French where *ne* has clear semantic import (Schapansky, 2002, 2010).

(34) Marie (**ne**) mange **pas**.
Marie NEG eats NEG
'Marie doesn't eat.' Zeijlstra (2009, p. 447)

The phenomenon of *ne*-dropping has led many scholars to believe that *ne* has no semantic import (Rowlett 1998, Zeijlstra 2004, 2008, 2009, among others). This analysis cannot be maintained for registers where *ne* occurs on its own and has clear semantic import (a point noted in Schapansky 2002, 2010).

English affixal contrary negation is expletive in certain environments (Horn, 1989). Omission of *ir-*, a contrary negator, in the word 'irregardless' does not affect the semantics. Horn (1989), citing Marchand (1969), notes similar instances of expletive negation in 19th century English, in all instances it is the contrary prefix being expletive[14]. Table 2.3 is cited in Horn (1989, p. 280) and taken from Marchand (1969).

Table 2.3: Contrary Negation as Expletive Negation

(un)boundless	(un)guiltless	(un)numberless	(un)shameless
(un)dauntless	(un)helpless	(un)questionless	(un)shapeless
(un)effectless	(un)matchless	(un)remorseless	(un)timeless
(un)fathomless	(un)merciless	(un)restless	(un)witless

Expletive contrary prefixes are found in other languages as well. In German, the word *unzweifellos* meaning 'undoubtedly,' where *un-* is a contrary prefix and *-los* a marker of negation, is synonymous with the *un*-less *zweifellos* (Horn, 1989, p. 280).

[14]Note that many of the examples in Table 2.3 sound archaic, but some of which I believe could be uttered today and have the same intended meaning.

I am at the moment unaware of other classes of negators being expletive in any language. Note that contradictory negators, such as *non* in Italian and *dhen* in Greek, are argued in the literature to have expletive readings, but these readings are not truly expletive in the sense of the term used here (they have semantic import, see Yoon 2011, Makri 2013, Choi and Lee 2017, and Tahar 2018).

Pronominal clitics, but not stronger forms of pronominal elements, may be expletive (Cardinaletti and Starke, 1999)[15], parallel to contrary negators.

(35) *French*

a. ✓**Il** est arrivé un grand malheur.

b. *Lui est arrivé un grand malheur.
he is arrived a big disaster
'There was a big disaster.' (**il** = clitic, **lui** = strong pronoun)

adapted from Cardinaletti and Starke (1999, p. 50)

Languages often distinguish between definite and expletive articles (Table 2.4). Expletive articles are argued in Panagiotidis (2000) to be the weakest elements in his tripartition of determiners, parallel to contrary negators and pronominal clitics. The use of the article modifying the proper name signals that the article is expletive, as the proper name already signals definiteness (see Panagiotidis 2000). Table 2.4 is taken from Panagiotidis (2000, p. 731).

Table 2.4: Articles

	Definite article	Expletive article
Standard Greek	*o* skilos	*o* Yanis
Northern Greek	*u* skilus	*i* Yans
Catalan	*el* god	*en* Joan
Föhr Frisian	*di* hünj	*a* Hans

[15]The translation in (35) is my own.

To the best of my knowledge, demonstratives/deictic pronouns cannot be used expletively. Definite articles cannot be used expletively essentially by stipulation (they contrast with expletive articles)[16]. The parallels among contrary negators, pronominal clitics, and expletive articles are such that they should be given a similar syntactic analysis. As pronominal clitics and expletive articles have been argued to be the most deficient forms of pronouns (Cardinaletti and Starke, 1999) and determiners (Panagiotidis, 2000) respectively, deficient meaning structurally deficient, it follows that contrary negators should be the most deficient forms of negation, lending weight to arguments put forth in de Clercq (2013).

2.3.2 Contradictory Negators

Contradictory negators impart the semantics of contradictory negation (see §2.2.1). Contradictory negators, like contrary negators, come in hi and lo varieties. Lo contradictory negators include the constituent negator *non-* in English shown in Table 2.2. In English, lo contradictory negators do not merge in the clausal spine, only in the extended projection of nouns and adjectives. I show in chapter three that the negator *tə1* in Sgaw Karen is a lo contradictory negator occurring in the clausal spine, thus showing that whether or not a lo contradictory negator can merge in the clausal spine varies cross-linguistically. Hi contradictory negation is equivalent to sentential negation. For example, a sentence such as "I didn't call" in English can only be either true or false (see discussion in de Clercq (2013)). In Italian, *non* is a hi contradictory negator and specifically a head merged immediately above TP (see Zanuttini 1997, Zeijlstra 2004, 2008).

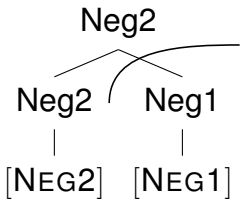
[16]See Lyons (1999) for an argument that all definite articles are expletive. Note that Lyons' analysis would not make sense of the fact that some languages distinguish between expletive and definite articles (Table 2.4). I am unaware of anyone else issuing a similar rejoinder to Lyons' analysis.

(36) Gianni **non** ha telefonato
Gianni NEG has called
'Gianni didn't call.' Zeijlstra (2008, p. 2)

I discuss the syntax of hi contradictory (sentential) negation in Italian in more detail in §2.5 in order to compare the differences between sentential negation in Italian and English. This framework departs from the negative classes argued for in de Clercq (2013) in the sense that her polarity negators (equivalent to hi contradictory negators/sentential negators here) and her degree negators (equivalent to lo contradictory negators) are collapsed into one category. The difference between the two categories in de Clercq's framework is primarily based off scope, and these differences can be derived by assuming one class of negation merged in two different places in the clausal spine. This one class, two locations approach to negative classes applies to contrary and focus negators as well, the approach having important consequences for focus negators, to be discussed in §2.3.3.

Similar to de Clercq (2013), Contradictory negators realize complex internal structure (37).

(37) Syntax of Contradictory Negation



⇒ Contradictory Negation

⇒ Contrary Negation

It has been shown that contrary negation is a deficient form of contradictory negation, lending weight to the idea that contradictory negation has more internal structure than contrary negation. I argue further that contradictory negators are in turn deficient forms of focus negators based on the fact that sentential negators, equivalent to hi contradictory negators, appear to be deficient forms of negative po-

larity particles, equivalent to hi focus negators[17]. In Somali, the sentential negator *ma*[18] appears to be a deficient form of the negative polarity particle *maya*.

(38) **ma** hesho
NEG find.2SG
'you do not find'

adapted from Orwin (1995, p. 122), gloss is my own

(39) dialogue adapted from Orwin (1995, p. 70), glosses are my own

a. Weli ma qadeysay?
yet Q have lunch.2SG
'Have you had lunch yet?'

b. **Maya**

'No'

In Jewish Babylonian Aramaic, the negative polarity particle *law*[19] is a contraction of the sentential negator *la* and the 3rd person masculine singular indefinite *hu* (Siegal, 2015)[20]. Siegal and De Clercq (2017) give a parallel example of the negative polarity particle *neca* in Sicilian arising from the univerbation of the sentential negator *un* (not), *jè* (it is), and *ca* (that).

In Somali, Jewish Babylonian Aramaic, and Sicilian, the negative polarity parti-

[17] See also arguments in de Clercq (2013) that her category of focus negators, equivalent to lo focus negators here, realize more syntactic structure than her categories of quantifier and degree negators, parallel to lo contradictory and lo contrary negators respectively in this framework, based on diachronic data from English.

[18] *Ma* is also a question marker. I set aside the homophony between the question marker and the sentential negator here.

[19] This constituent has other specialized uses beyond being used to mark a negative reply, see discussion in Siegal (2015). These other uses are all in accordance with the analysis of focus negators here, as far as I can tell.

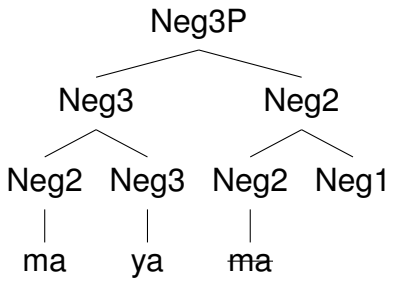
[20] The following example illustrates *law*'s use as a negative polarity particle:

(40) 'mar l-eh 'it l-ak nikse b-qapputqaya,
say.PST.3MASC.SG to.3MASC.SG exist to.2MASC.SG property in-GN
'mar l-eh **la-w**
say.PST.3MASC.SG to.3MASC.SG NEG.3MASC.SG
'He said to him, "Do you have property in GN?" He replied, "No."'

adapted from Siegal (2015, p. 1039)

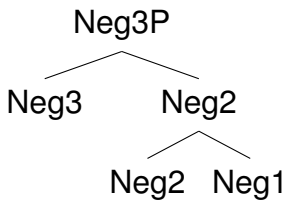
cle appears to be the sentential negator with a morpheme tacked on. This pattern can be modeled in this framework as the sentential negator moving from Neg2^0 to Neg3^0, picking up the added morpheme in the latter projection (41).

(41) Somali *maya*



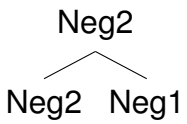
Of course, not all languages are such that the negative polarity particle is equivalent to the sentential negator with an added morpheme, Italian being one example. In Italian, the negative polarity particle is *no* and the sentential negator is *non* (Poletto and Zanuttini, 2013). This can be modeled as Neg3P and Neg2P spelling out as different constituents (see also de Clercq 2013).

(42) Italian *no*



$\Rightarrow$ no

(43) Italian *non*



$\Rightarrow$ non

Contradictory negators show parallels to the intermediary class of weak pronouns in Cardinaletti and Starke (1999) in the tripartition of pronominal elements and to definite articles in Panagiotidis (2000) in the tripartition of determiners. Weak pronouns are argued to be deficient strong pronouns (Cardinaletti and Starke, 1999). Note that strong pronouns are at the top of the tripartition of pronominal elements, parallel to focus negators. Strong pronouns often consist of weak pronouns with an added morpheme. Table 2.5 is adapted from Cardinaletti and Starke (1999,

p. 70).

Table 2.5: Strong and Weak Pronouns

strong:	je-**ho**	je-**mu**	a **loro**
weak:	**ho**	**mu**	**loro**
	him, Slovak	to him, Slovak	to them, Italian

In the framework of Panagiotidis (2000), definite articles are the intermediary level and demonstratives the upper level of the tripartition of determiners. Definite articles derive from demonstratives diachronically (Panagiotidis 2000, see also Heine and Kuteva 2002, p. 109-110 for cross-linguistic examples, see also discussion in Lyons 1999). In English the definite article *the* derives from the demonstrative *that* (Traugott 1980, p. 49, cited in Heine and Kuteva 2002, p. 109).

Other parallels among contradictory negators, weak pronouns, and definite articles do not appear to be robust in the same way as for contrary and focus negators and their respective parallel classes of pronouns and determiners.

2.3.3 Focus Negators

Focus negators have the ability to impart the semantics of focus negation (see §2.2.2). At times, this class of negators acts in a manner similar to contradictory negators in imparting contradictory negation without the effect of targeting an antecedent, to be discussed later in this section. Focus negators are separated into hi and lo variants in a similar manner to contrary and contradictory negators. Lo focus negators such as *not* impart contrastive negation. (7) is repeated in (44).

(44) I saw **not** JOHN, but BILL.

Lo focus negators also can denote a high degree of emphasis and scope only over *v*P as in the English sentences in (45). That negation only scopes over VP

and does not impart negative sentential polarity is evidenced by the fact that the sentence is followed by a negative tag (see Klima (1964) for more information on this diagnostic).

(45) adapted from de Clercq (2013, p. 31)

a. Kim is **NOT** happy, isn't she?

b. Kim is **NOT** VERY happy, isn't she?

Hi focus negators are used with negative responses (46) and negative polarity emphasis (47). (5) and (14) are repeated in (46) and (47) respectively.

(46) a. A: Did John go to the store?

b. B: **No** = $\neg p$ (John did not go to the store)

(47) a. A: John arrived late.

b. B: **No** he did **not**!

I argue in chapter five, in a manner similar to Laka (1990), that negative responses involve elided negative polarity emphasis, which explains why *no* in English is used in both constructions. That lo focus negators such as *not* are not used with negative responses and negative polarity emphasis is that *not* does not scope over an entire proposition, but it can scope over sub-propositional elements.

Hi focus negators are also used contrastively in specific environments. With negative polarity, a hi focus negator can be used contrastively (see Kramer and Rawlins 2010[21]) (48).

(48) A: John doesn't play hockey.

B: **No**, BILL doesn't (play hockey).

Hi focus negators also act to reverse the positive polarity of an antecedent (49), re-

[21] (48) is similar to an example in Kramer and Rawlins (2010, p. 11).

ferred to here as negative polarity reversal (see Kramer and Rawlins 2010, Holmberg 2016, among others).

(49) a. A: Did Alfonso not go to the party?

b. B: No, he DID go Kramer and Rawlins (2009, p. 9)

I argue in chapter five, following discussion in Kramer and Rawlins (2010), that negative polarity reversal (49) is a form of contrastive negation, where specifically a hi focus negator is contrasting negative and positive polarity.

A primary diagnostic of focus negators is that they license ellipsis[22] (51), a point alluded to in Merchant (2006)[23].

(50) A: Did you$_i$ like the play?

B: **No** (I$_i$ didn't like the play).

(51) A: Should I attend the meetings?

B: I suggest that you should **not** (attend the meetings).

adapted from Potsdam (1997, p. 538)

That hi focus negators/negative response particles license ellipsis is not an innocuous assumption. There is an ongoing debate in the literature as to whether or not there is elided structure after negative polarity particles, this debate and the scholars taking part in it to be discussed in chapter five. I take the tack that negative polarity particles license ellipsis and plead my case in chapter five using primarily arguments from existing sources.

Negative sentential (hi contradictory) heads do not license ellipsis[24]. (52) and

[22](51) exhibits *not* licensing ellipsis in a subjunctive clause (see discussion in Potsdam 1997). I chose this arrangement to make clear that it is *not* licensing ellipsis and not *do* when *do* is present with do-support, do-support being absent in subjunctive clauses.

[23]Merchant does not use the term contrastive negation. He notes that XP negative markers, all of which are focus negators in the languages he discusses (as far as I can tell), license ellipsis.

[24]Merchant (2006) notes that negators of status X^0 do not license ellipsis and makes no mention of the negator imparting specifically contradictory negation. For Greek and Italian, the negator is of

(53) are examples of intended ellipsis with a sentential negator of status X^0 in Greek and Italian respectively, both examples are adapted from Merchant (2006, p. 21).

(52) An erthi, tha'ne kala; an {*__dhen__/__oxi__}, tha exoume provlimata.
If comes, will be good, if not/no, will we have problems
'If he comes, it'll be fine. If not/*no, we will have problems.

(53) Se arriva, bene; se {*__non__/__no__}, avremo problemi.
If comes, good; if not/no, we will have problems
'If he comes, it'll be fine. If not/*no, we will have problems.

Merchant (2006) proposes a test for disambiguating whether or not a sentential negator is a head or an adverb. Adverbs, and not heads, appear in the 'why not' construction, as shown in Table 2.6, adapted from Merchant (2006, p. 20). In English, German, Dutch, Danish, Icelandic, French, and Tsez, the constituent signaling sentential negation is argued independently to be an adverb (XP) and appears in the 'why not' construction, and in Greek, Italian, Bezhta, and Russian, the constituent signaling sentential negation is argued independently to be a head and does not appear in the 'why not' construction[25].

status X^0 and imparts contradictory negation (see de Clercq 2013).

[25]Table 2.6 leaves out information, crucial to Merchant's analysis but not crucial to the analysis here, that Greek, Italian, Bezhta, and Russian recruit the negative response particle to be used in the 'why not' construction. The focus here is on sentential negation and not negative response particles. Note that this does not pose an issue for my framework, as I argue that negative response particles are focus negators capable of licensing ellipsis.

Table 2.6: Why Not Construction

English	why	not?
German	warum	nicht?
Dutch	waarom	niet?
Danish	hvorfor	ikke?
Icelandic	hverfor	ekki?
French	pourquoi	pas?
Tsez	shida	anu?
Greek	*giati	dhen?
Italian	*perchè	non?
Bezhta	*su-d	-esh?
Russian	*pochemu	ne?

In chapter three I use the 'why not' test to show that the negator *tə1* in Sgaw Karen is a head and not an adverb/XP. All examples of XP negators that Merchant provides are, to the best of my knowledge, focus negators. I assume, given the tight connection between XP status and focus negation, that the 'why not' construction diagnoses whether or not a negator is a focus negator[26].

As noted previously, focus negators do not have to target antecedents. In de Clercq (2013), focus negators in her system (lo focus negators in this framework) act as adverbial modifiers, which indicate that *not* need not target antecedent constituents in all instances.

(54) not long ago, not everybody, not very often

de Clercq (2013, p. 31)

[26]I am unaware of lo contradictory and contrary negators licensing ellipsis in any language. In chapter three, I show that the lo contradictory negator *tə1* in Sgaw Karen does not license ellipsis. Typically, lo contradictory and lo contrary negators are affixes, so it makes sense that they do not license ellipsis.

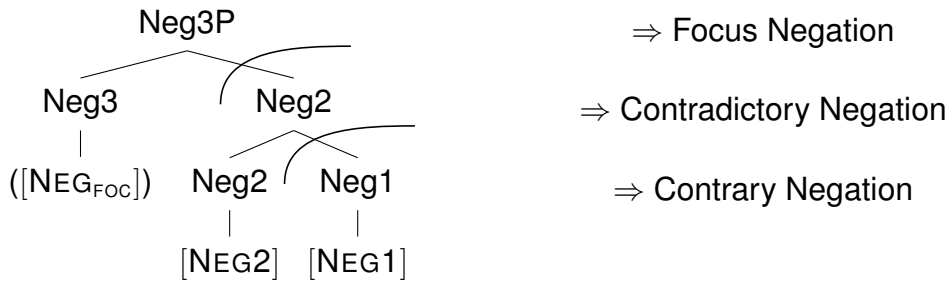
I do not discuss the role of focus negators as adverbial modifiers in depth, although I discuss it in some detail in chapter six for Ojibwe negation. English *not* when used to signal sentential negation does not have to target an antecedent without *no*. For example, a person walking down the street can utter (55), the negated proposition not targeting an antecedent as it is used in an out-of-the-blue scenario. The diagnostic of using an out-of-the-blue scenario to show that a negative construction does not target an antecedent is taken from Larrivée (2014).

(55) I did **not** lock the door!

In cases like (54) and (55), I argue that focus negators do not bear the requisite [NEG_{FOC}] feature needed to target an antecedent. In chapter six, I show that the hi focus negator *gaawiin* also does not have to target an antecedent in the same way as the lo focus negator *not* in English.

Focus negators realize more complex internal structure than either contradictory or contrary negators[27], similar to de Clercq (2013). They realize both Neg1^0 and Neg2^0, the combination of these two heads being responsible for focus negators marking contradictory negation. Focus negators project Neg3^0, which potentially bears the [NEG_{FOC}] feature responsible for focus negators targeting an antecedent. (26) is repeated in (56).

(56) The Syntax of Focus Negators



[27] I would like to thank Claire Halpert for suggesting to me that *gaawiin* in Ojibwe, equivalent to a focus negator in this framework, could have complex internal structure, which has influenced the analysis here.

That focus negators realize the most internal syntactic structure is supported by the fact that they show parallels to strong pronouns and demonstratives, both classes realizing the most internal syntactic structure of their respective tripartitions[28]. All three of these classes can be used as fragment answers[29,30].

(57) Q: Did you see anything?

A: **no**

(58) Italian

Q: Chi è bella? (Who is pretty)?

A: **lei** (her)

(*lei* = strong pronoun) adapted from Cardinaletti and Starke (1999, p. 47)

(59) Q: What did you see?

A: **that**

Focus negators, strong pronouns, and demonstratives are all used ostensively, meaning that a person can use these words to point to things in the immediate environment[31]. $\Longrightarrow$ denotes ostension, this convention borrowed from Cardinaletti and Starke (1999).

(60) (A father points to a bottle that his son intentionally dropped on the ground)

$\Longrightarrow$**No**

[28] See Cardinaletti and Starke (1999) on why strong pronouns realize the most internal syntactic structure and chapter seven for an argument that demonstratives in Norwegian have the most internal syntactic structure.

[29] That demonstratives can license ellipsis, and not definite articles, is discussed in Kester and Sleeman (2002).

[30] Affixal negation in English cannot be used to answer questions, one reason being the fact that they cannot be uttered in isolation due to their affixal nature. That *not*, being a focus negator, cannot be used as a fragment answer has to do with the fact that it does not scope over a proposition and thus cannot be used to respond to a question.

[31] See Cardinaletti and Starke (1999) for ostension and pronouns and Panagiotidis (2000) for ostension and determiners.

(61) J(e) ai aidé ✓⟹**elle**
I have help her
'I helped her.' (**elle** = strong pronoun)

adapted from Cardinaletti and Starke (1999, p. 48)

(62) I saw ⟹**that**

The evidence here indicates that focus negators are parallel to strong pronouns and demonstratives, and since strong pronouns and demonstratives realize a place at the top of the tripartition of their respective classes, it follows that focus negators realize a place at the top of the tripartition of negative elements. Table 2.7 summarizes the characteristics of parallel classes of negative, pronominal, and determiner elements.

Table 2.7: Characteristics of the Classes of Negative, Pronominal, and Determiner Elements

	Expletive	Fragment	Ostension	Prosodic Restructuring
Contrary Negator Clitic Pronoun Expletive Article	✓	*	*	✓
Contradictory Negator Weak Pronoun Definite Article	*	*	*	*
Focus Negator Strong Pronoun Demonstrative	*	✓	✓	*

2.3.4 Further Parallels

Negators, pronouns, and determiners show a number of further parallels when taken as whole categories. Double exponence of negation, pronouns, and deter-

miners occurs cross-linguistically. Double exponence of negation has been amply demonstrated thus far. Double exponence of pronouns is exemplified by the phenomenon of clitic doubling (see Anagnostopoulou 2006 for an overview). In Spanish (63) and Romanian (64), a strong pronoun obligatory co-occurs with a clitic.

(63) **Lo** vimos **a él**. [Spanish]
CL.ACC saw-we him
'We saw him.' adapted from Anagnostopoulou (2006, p. 537)

(**a él** = strong pronoun, **lo** = clitic)

(64) Am văzut-**o** **pe ea** [Romanian]
have-I seen-CL her
'I have seen her.' adapted from Anagnostopoulou (2006, p. 537)

(**pe ea** = strong pronoun, **o** = clitic)

Clitic doubling, like bipartite negation, has both optional and obligatory variants, as noted in Anagnostopoulou (2006). I do not draw any parallels here between the optionality of bipartite negation and clitic doubling, although I leave open the possibility that a potentially fruitful line of research could find some parallels.

Doubling occurs with determiners as well. In Northern Greek (and other dialects of Greek) demonstratives obligatorily co-occur with a definite article (65) (Panagiotidis, 2000).

(65) **u** skilus **aftos** [Northern Greek]
the dog this
'This dog' adapted from Panagiotidis (2000, p. 731)

Negators, pronouns, and determiners go through similar diachronic cycles. Sentential negation goes through what is known as Jespersen's Cycle (Dahl 1979, based off of Jespersen 1917, see discussion in Hansen and Visconti 2012) as exemplified by French in (66)[32]. *Ne* in (66-a) is free-standing and on its own is

[32]Although note that some languages do not exactly follow Jespersen's Cycle, see Kiparsky

a sentential negator. It weakens in (66-b) (not always shown clearly in the written language) to become a clitic and is doubled by the free-standing sentential negator *pas*. In the final stage (exemplified by Quebecois French, see Zeijlstra 2008, see also chapter four of this thesis), the clitic *ne* erodes away and only *pas* is left. Intermediate stages of Jespersen's Cycle that have been postulated in the literature[33] are left out of (66) for expository purposes.

(66) adapted from Hansen and Visconti (2012, p. 455)

a. je **ne** dis

b. je **ne** dis **pas**

c. je dis **pas**
I NEG say NEG
'I don't say'

Lyons (1999) shows that determiners go through a diachronic cycle parallel to negative markers. He shows that demonstratives become free-standing definite articles which can then weaken to become suffixes. The free-to-bound transformation is seen by two synchronically competing forms in Icelandic in (67) and by comparing Romanian with Italian in (68), the articles in these two languages deriving from the same proto-form.

(67) *Icelandic* Lyons (1999, p. 327)

a. hestur-**inn** 'the horse'

b. **hinn** sterki hestur 'the strong horse'

(68) Lyons (1999, p. 327)

a. *Romanian* profesor-**ul** 'the teacher'

b. *Italian* **il** professore 'the teacher'

and Condoravdi (2006) and Chatzopoulou (2013) for Greek and Biberauer (2007) for Afrikaans. I discuss variants on diachronic cycles of negation in forthcoming chapters.

[33] See Hansen and Visconti (2012, p.455).

Lyons shows that bound articles may then be doubled by a new free-standing article, as is the case in Scandinavian languages. Swedish is one example (69).

(69) Lyons (1999, p. 78)

a. resa**n** 'the journey'

b. **den** l$\mathring{a}$nga resa**n** 'the long journey'

c. **de** fyra resor**na** 'the four journeys'

Similarities between the Scandinavian double definite construction and bipartite negation in Ojibwe will be given in chapter six.

Lyons speculates (he gives no examples to support it) that in the last stage of this cycle the bound article is lost altogether, thus renewing the cycle. The important takeaway is that the cycle governing diachronic change of negators seems to hold for determiners as well. Similar diachronic cycles have been posited for pronominal elements (see van Gelderen 2011).

Taken together, the evidence here shows further systematic similarities among negators, pronouns, and determiners, calling for a similar treatment of each phenomenon.

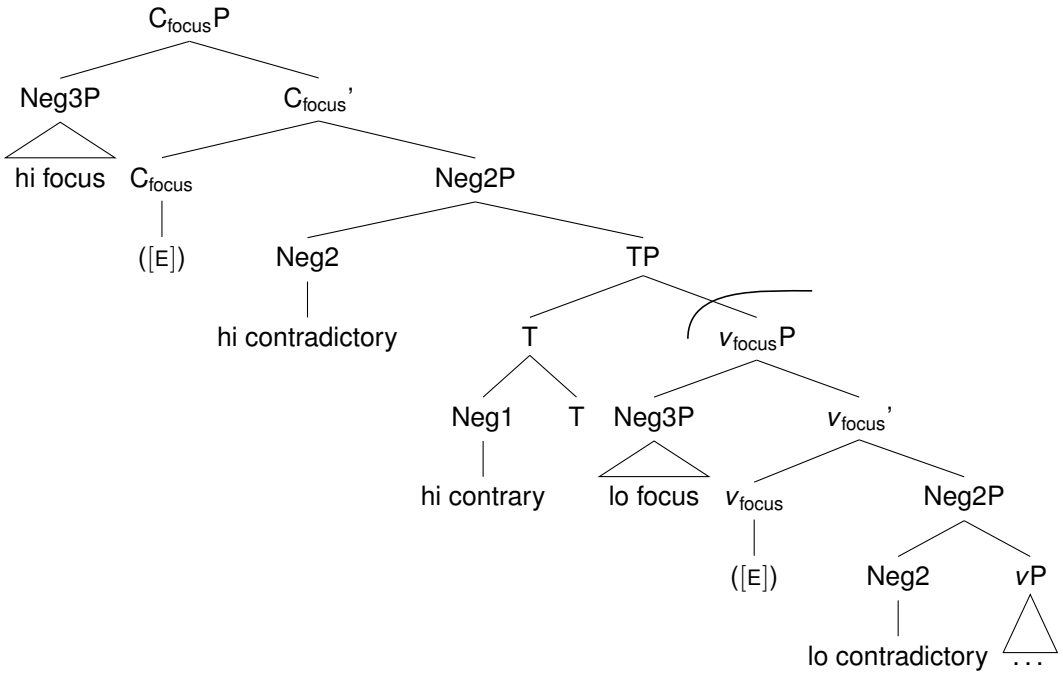
2.4 Negation and the Clausal Spine

§2.3 outlined the internal syntax of contrary, contradictory, and focus negators, such that the three classes realize a cline of internal syntactic structure. This section focuses on where each class is merged in the clausal spine, with the primary focus being on sentential (hi contradictory) negation.

Negators are merged in five potential places in the clausal spine, though some of these places are not available in certain languages. For example, English lacks a dedicated hi contrary negator, and I show in chapter three that Sgaw Karen

lacks both a hi and lo focus negator. Hi contradictory negation, corresponding to Neg2P scoping over TP, appears to be universal, although Neg2P does not have to be overt. Lo contradictory negation appears in the clausal spine in Sgaw Karen, as will be shown in chapter three. (70) is repeated from chapter one. The arc in (70) marks the boundary between the lo and hi domains (equivalent to a phase boundary)[34]. Lo contrary negators only appear in the extended projections of adjectives and are thus left out of (70).

(70) Negation and the Clausal Spine

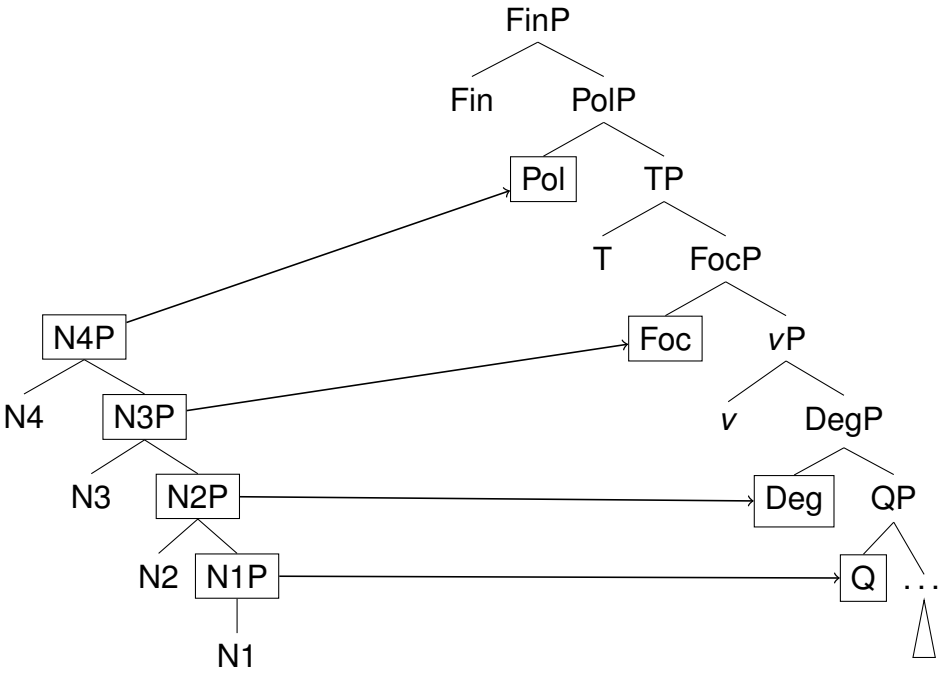


The association of a negative class with a specific place in the clausal spine is parallel to the framework of de Clercq (2013). de Clercq posits four different places in the clausal spine where each class of negative element in her system merges (71)[35].

[34] In chapter three, it will be shown that lo contradictory negation in Sgaw Karen appears above a projection hosting root possibility modals in a finely-articulated *v*P. This information is left out of (70) to increase readability.

[35] The diagram in (71) leaves out aspects of de Clercq (2013) where the negative phrase is

(71) Negation and the Clausal Spine in de Clercq's system (adapted from de Clercq 2013, p. 29)



In this framework, focus negators are merged in focus projections, each projection being relatively high in articulated versions of CP and *v*P. The head of each focus projection may realize an ellipsis feature [E] licensing the non-articulation of phonetic material. de Clercq only discusses the equivalent of lo focus negators in my framework (her focus negators) and does not discuss ellipsis or provide an analysis of negative response particles (hi focus negators in this framework). Furthermore, de Clercq also does not discuss the equivalent of hi contrary negators in this framework, contrary negation only being imparted by her class of quantifier (Q-)negators merged in QP which dominates adjective phrases.

Contradictory negators in my framework are heads, even though their internal structure realizes both Neg1^0 and Neg2^0. Having contradictory negation realize the complex internal structure argued for here and have the status of a head admittedly

first merged low in the clausal spine and undergoes movement operations. I do this to enhance readability.

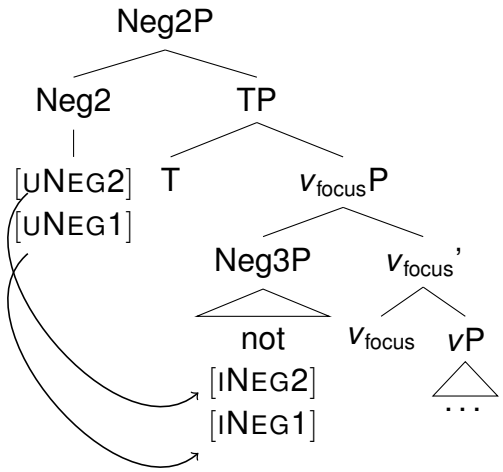
appears inelegant[36]. A tension exists between the fact that contradictory negators realize more internal structure than contrary negators and at the same time act like heads, an example being the constituent that marks the scope of sentential negation in Sgaw Karen *bə5* (see discussion in chapter three). See also Zanuttini (2001) and Zeijlstra (2008) for arguments that negators appearing immediately above TP have X^0 status. I do not wish to get into a debate about the syntactic status of heads, so I set this matter aside, noting that the current analysis may have to be reanalyzed in future work. The X^0 status of lo contradictory negators will be discussed in chapter three for Sgaw Karen.

Hi contrary negators are clitics, and being ambiguous maximal/minimal elements (Chomsky 1995a, Bošković 2002) are merged directly with a head, specifically T^0. The only representative member of this class to be discussed in this thesis is French *ne*, and I choose T^0 as the head to which *ne* merges with as this option is in line with the syntax of French negation argued for in Péters (1999) and Schapansky (2010). Lo contrary negators merge as affixes in the extended projections of adjective phrases. I set lo contrary negators aside for the remainder of this thesis.

In this framework sentential negation, equivalent to hi contradictory negation, is projected universally in Neg2P dominating TP, similar to the frameworks of de Clercq (2013) and Holmberg (2016). In instances where only an adverb signals sentential negation (or a structurally lower head as in Sgaw Karen, more on this in chatper three), it is a null $Neg2^0$ where sentential negation is interpreted, the lower adverb valuing the uninterpretable features (I assume all null heads bear uninterpretable features, recall discussion in chapter one) of $Neg2^0$ and being an overt signal of negation.

[36] Although this would be fine in frameworks such as Starke (2004) where heads can have complex internal structure.

(72) Agreement Between Neg2^0 and a Lo Focus Negator (Adverb)



Neg2^0 is where sentential negation is interpreted cross-linguistically, similar to Zanuttini (1997), de Clercq (2013), and Holmberg (2016) where sentential negation in marked cross-linguistically in the TP domain of the clause. The primary reason I give for negation always being interpreted in this position is that heads merged in this position appear to have no other use beyond making sentential negation. Following arguments in de Clercq (2013), I argue that specific postitions in the clausal spine are associated with specific functions, and it thus makes sense to associate heads in the TP domain of the clause with marking sentential negation given that they have no other function. Negative adverbs in the *v*P domain of the clause, such as *not* in English, have the additional function of being used as a contrastive (lo focus) negator (7). *Pas* in French is similar to English *not* in this respect (de Clercq 2013, see also chapter four). It was shown in (45) that focus negators merged in the *v*P domain of the clause also have the function of denoting a high degree of emphasis and only scope over *v*P. (45) is repeated in (73).

(73) adapted from de Clercq (2013, p. 31)

a. Kim is **NOT** happy, isn't she?

b. Kim is **NOT** VERY happy, isn't she?

I argue that the Spec,v_{focus}P position where *not* is merged in (73) has the function of denoting a high degree of emphasis. I argue that this position is most likely where the negator used in sentence-internal contrastive negation is merged (7). When *not* is not stressed and is merged in the *v*P domain, it is in agreement with a structurally higher head which imparts negation (72). I now turn to discussing English sentential negation in greater detail.

2.5 Sentential Negation in English

I demonstrate the framework here by using English as a toy example. English exemplifies negation being signaled by a structurally lower adverb in an agreement chain with a null, uninterpretable sentential negative head. English is compared with sentential negation in Italian later on in this section, Italian realizing an overt, interpretable sentential negative head. Negation in English is signaled by either *not* or affixal *n't* (74).

(74) a. I do **not** like apples.

b. I do**n't** like apples.

I focus first on sentences realizing the independent morpheme *not* and discuss later how this framework derives the suffix *n't* by adopting the analysis of Matushansky (2006).

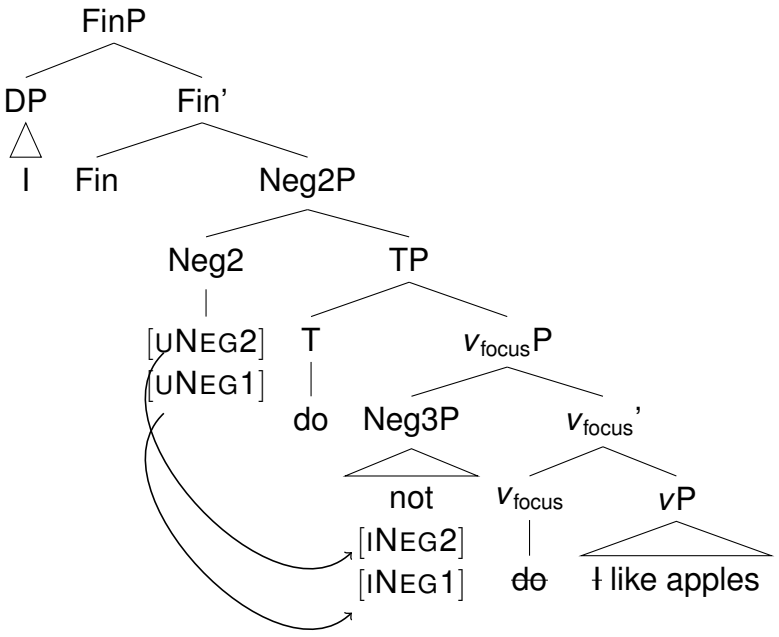
Not has the status of a focus negator, specifically a lo focus negator as it cannot be a negative response to a question. The requisite diagnostic is that it is used as contrastive negation. (7) is repeated in (75).

(75) I saw **not** John, but Bill.

Neg2^0 bears both [uNEG1] and [uNEG2]. Neg2^0 probes its c-command domain

and gets its features valued by *not* bearing both [iNEG1] and [iNEG2]. In instances where no auxiliary/modal is present, *do* is merged in $v_{\text{focus}}{}^0$ for reasons that will be discussed shortly and undergoes movement to T^0. I assume the subject moves to Spec,FinP, following Roberts (1985), Haegeman (2012), and de Clercq (2013), although it is entirely possible the subject ends up somewhere else. I make this assumption primarily to get the order of subject $>$ Neg2^0 to work out. (74-a) is repeated in (76).

(76) I do **not** like apples.



I assume that the primary reason why do-support is triggered with sentential negation in English is due to the fact that a focus projection is activated in the *v*P domain when *not* is merged in Spec,v_{focus}P. I assume that the focus projection blocks the affix hopping operation of Chomsky (1957), possibly due to a lack of adjacency (in the sense of Bobaljik 1995)[37], as an extra projection intervenes between the main verb and inflection generated in T^0. These assumptions are pri-

[37] I assume that the affix hopping operation is more complex than how it is used here and set this matter aside.

marily speculative and I set aside a more in-depth analysis of do-support as it goes beyond the scope of this thesis.

The benefit of this analysis of English negation is that it provides a solution to a long-standing debate as to whether *not* is an adverb or a head (see discussion in Zeijlstra 2008, Repp 2009). That *not* is an adverb is evidenced by the fact that it does not block head movement (see Ernst 1992).

(77) I am **not** ~~am~~ here.

That *not* is a head is argued for in Potsdam (1997). He adopts the analysis that only heads and not XPs license VP-ellipsis[38], and he notes that *not* licenses ellipsis (78), and therefore concludes that *not* is a head. (51) is repeated in (78).

(78) A: Should I attend the meetings?
B: I suggest that you should **not** (attend the meetings).

adapted from Potsdam (1997, p. 538)

I argue here that it is not specific heads per se that license ellipsis but the [E] feature in $v_{\text{focus}}{}^0$. v_{focus}P and the [E] feature contained within is activated in (at least) one of two fashions. The first instance is when a focus element, including the contrastive focus negator *not*, is merged in the specifier position of this projection. The second instance is when heads raise to T^0 in English, which I assume, although do not give further evidence, that they activate v_{focus}P, perhaps as an intermediary step of movement. It is not an idiosyncratic feature of heads (specifically heads that move to T^0) that allow them to license ellipsis, but the fact that these heads activate a focus projection. That modals of all stripes activate a *v*P-internal focus projection would support the analysis that all modals are raising verbs (Wurmbrand, 1999), perhaps originating lower than v_{focus}P and moving through this projection on their way to T^0. Admittedly, this version of VP-ellipsis licensed by auxiliaries has not

[38] See Lobeck (1995).

been worked out in great detail. I do not comment on this matter further as VP-ellipsis goes beyond the scope of this thesis.

Adverbs not merging in (activating) v_{focus}P do not license ellipsis, as evidenced by adverbs such as absolutely (79-a) and certainly (79-b).

(79) Murakami (2007, p. 115)

a. *Kim needn't be there but it is imperative that the other organizers absolutely ∅.

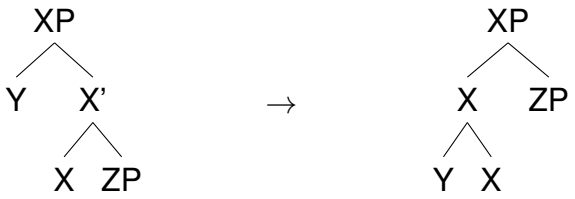
b. *Ted didn't want to vacation in Hawaii but his agent suggested that he certainly ∅.

I assume the reason these adverbs do not license ellipsis is due to the fact that they do not merge in Spec,v_{focus}P (perhaps in Spec,VP), and thus the [E] feature in ${v_{\text{focus}}}^0$ is not realized.

Similar arguments are made in Zeijlstra (2008) for *not* being an adverb even though it appears to license ellipsis. He assumes that what licenses ellipsis in English is a null head of NegP sandwiched between TP and *v*P. His framework is incompatible with this framework in that a dedicated NegP marking sentential negation does not appear immediately above *v*P, only immediately above TP.

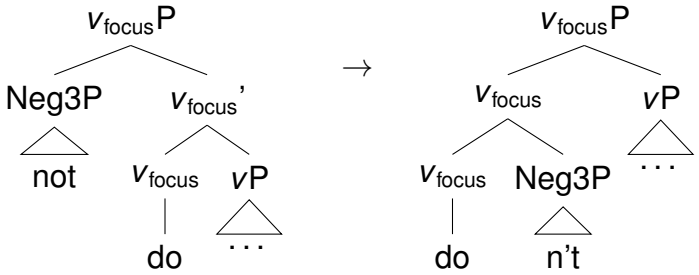
I now turn to discussing suffixal *n't*. I argue that since do-support is activated with suffixal *n't*, it must follow that v_{focus}P must be activated, and since negative adverbs activate this projection, it must be the case that a negative adverb must have been present at some point in the derivation. Thus, I argue that suffixal *n't* is derived from *not* at some point in the derivation. I follow Matushansky (2006) in positing that affixal *n't* arises from *not* undergoing m-merge with an auxiliary/modal. The m-merge operation takes an element in a specifier position and adjoins it to the head of that phrase.

(80) M-merger (Matushansky, 2006, p. 81)



Applied to do-support (and extendable to auxiliaries, not depicted here), *do* and *not* are merged in the same projection and undergo optional m-merge (81).

(81) *Do* and *not* m-merge



This framework differs from Matushansky's in that m-merge takes place in v_{focus}P instead of an auxiliary phrase. When *do* and *not* m-merge, they act as one constituent, and subsequent movement operations target *don't* (82-b) rather than just *do* (82-a)[39].

(82) a. Do$_i$ you **not** t_i like it?

b. Do**n't**$_i$ you t_i like it?

In instances where *n't* affixes to other auxiliaries or modals, I assume that *not* and the auxiliary/modal are realized at one point in the derivation in v_{focus}P with subsequent m-merger taking place.

English is a language where sentential negation is signaled by a null head, specifically null Neg2^0. Other languages realize an overt variant of Neg2^0. Italian is one such language, as the sentential negative head *non* is merged in the TP domain of the clause (Zanuttini 1997, Zeijlstra 2008), *non* thus being the overt

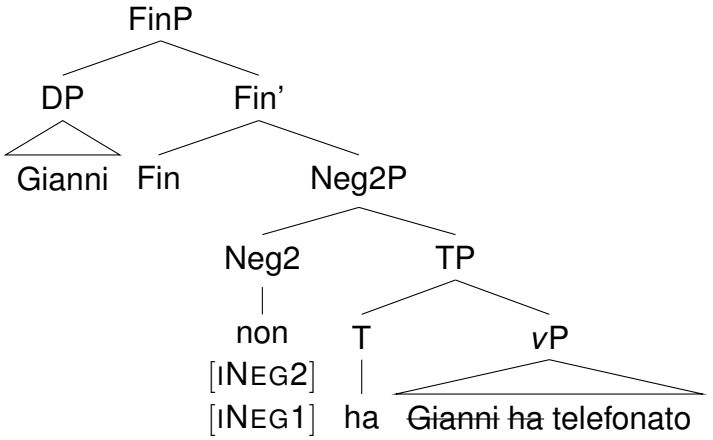
[39]The interpretive differences between (82-a) and (82-b) are not discussed here. See Reese (2007) for an overview.

variant of Neg2^0 in English as I argue that null Neg2^0 covaries with overt Neg2^0 in the same position of the clause cross-linguistically (recall that *not* in English appears in the *v*P domain of the clause). (36) is repeated in (83).

(83) Gianni **non** ha telefonato
Gianni NEG has called
'Gianni didn't call.' Zeijlstra (2008, p. 2)

Non bears both [iNEG1] and [iNEG2] and does not initiate the AGREE operation as evidenced by the fact that it does not have to co-occur with another negative constituent. (84) diagrams (83).

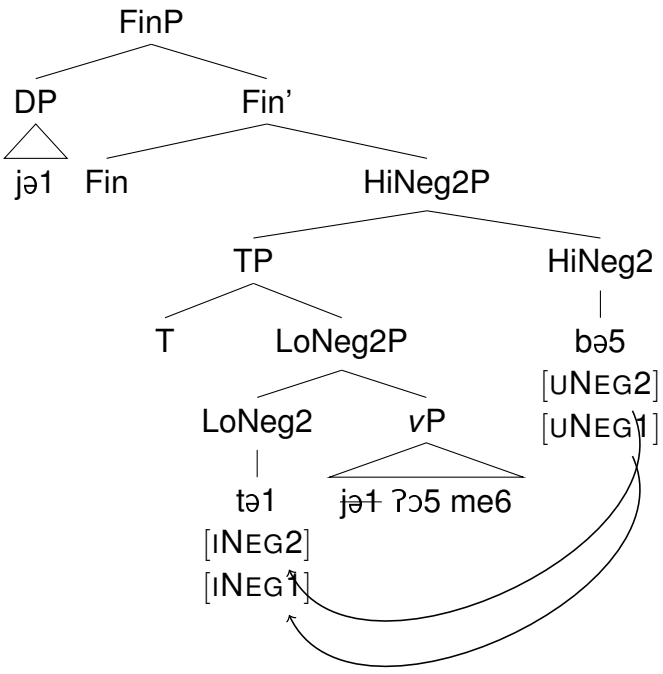
(84) Sentential Negation in Italian



English and Italian differ in terms of (i) whether sentential negation is null (English) or overt (Italian) and (ii) the interpretability of features, both [NEG1] and [NEG2] being uninterpretable in English and interpretable in Italian. In chapter three, I argue that sentential negation in Sgaw Karen is overt (and optional) and bears [uNEG1] and [uNEG2] (85), hence somewhere in between English and Italian. (85) is repeated from chapter one.

(85) jə1 **tə1** ʔɔ5 me6 **bə5**
I NEG eat rice NEG

‘I don’t eat rice.’



That languages like Sgaw Karen have an overt counterpart to the null and specifically uninterpretable Neg2^0 in English that is dependent upon a structurally lower negator gives credence to my analysis of English negation as realizing syntactic agreement. In a sense, English has bipartite negation, in the sense that it realizes two constitutes in an agreement chain, although I reserve the term bipartite negation for two overt constituents marking sentential negation.

As mentioned in chapter one, I assume that all null heads are uninterpretable for negation, and thus there is nothing like a covert Neg2^0 bearing both [iNEG1] and [iNEG2]. I have found no evidence for such a configuration, and the existence of such a head appears problematic as there appears to be no such languages where uttering a sentence with no negative morphology could be ambiguous in intepretation between a positive and negative reading (see also Penka 2011 and Biberauer and Zeijlstra 2012 for a similar point).

2.6 Agree and NegP Splitting

The AGREE operation is central to deriving two of the three types of bipartite negation discussed in this thesis (see chapter one for more information on these two types). Agreement was shown in §2.5 for English. In English, AGREE takes place between a null head and an overt lo focus negator. I expound here more on how I assume the AGREE operation works in my framework. Recalling previous discussion, I assume that semantically uninterpretable features are also syntactically unvalued, as per the valuation/interpretability biconditional of Chomsky (1995b) (contra Pesetsky and Torrego 2007). This entails that constituents uninterpretable for a feature do not impart the semantics of that feature and must also initiate an agreement relation with some constituent that carries an interpretable version of the corresponding feature. This biconditional is important for establishing some aspects of bipartite negation in Sgaw Karen, to be discussed in chapter three.

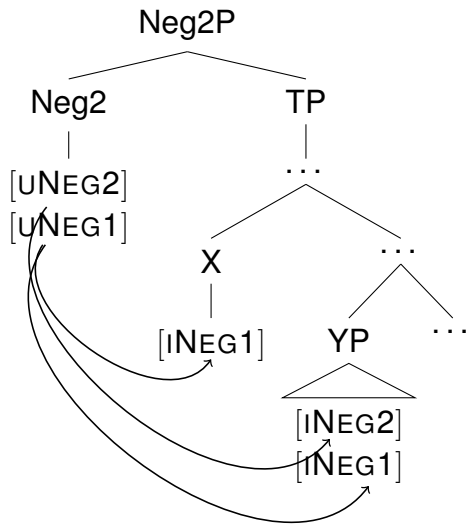
The agreement operation in this framework bears a resemblance to how agreement works in Zeijlstra (2004, 2008). I highlight some important differences here. First, in this framework, there are three types of negative features, and in Zeijlstra's there is only one (un)interpretable [NEG] feature responsible for contradictory negation. Second, a crucial aspect of Zeijlstra's framework is that two [iNEG] features in a clause cancel each other out yielding positivity. (24) is repeated in (86) and is an example of a clausal negator and an n-word yielding mutual cancellation in Dutch.

(86) Jan belt **niet**$_{[iNEG]}$ **niemand**$_{[iNEG]}$ [Dutch]
Jan call NEG nobody
'Jan doesn't call nobody' = 'Jan calls somebody' Zeijlstra (2008, p. 2)

I do not comment on the Dutch data any further as it goes beyond the scope of this thesis. In this framework, multiple constituents bearing an [iNEG] feature that occur in an agreement chain do not cancel each other out. (87) is repeated from

chapter one.

(87)



There are three constituents entering into an agreement relation: Neg2^0, X, and YP. Neg2^0 gets its [uNEG1] feature valued by X and YP, and [uNEG2] by just YP. Although two instances of [iNEG1] are realized in the clause, I argue that the agreement chain binding the three constituents forces only one interpretation of [iNEG1] to be interpreted at the top of the chain (along with [iNEG2]). Thus, in a chain realizing two instances of [iNEG1], only one instance of that feature is interpreted, which in tandem with [iNEG2] realizes contradictory negation. I give evidence from French in chapter four that two constituents bearing [iNEG1] output to one logical interpretation of the feature, provided that the two constituents are in an agreement relation.

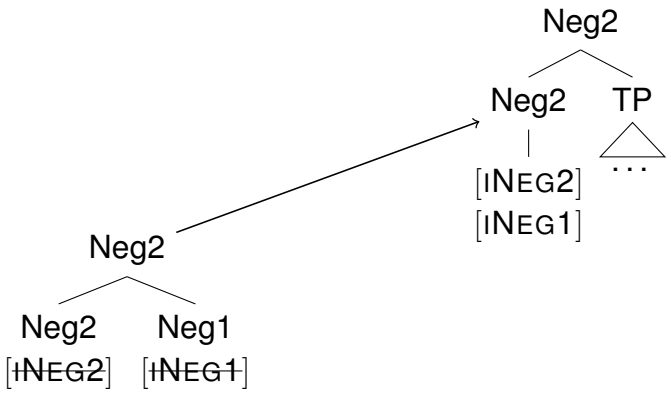
I argue in chapters four and five that agreement can only probe so far into the clause due to the Phase Impenetrability Condition (Chomsky, 2000), mainly up until the edge of Spec,v_{focus}P or a phase boundary, Spec,v_{focus}P not always marking the phase boundary (see discussion in chapter three on Sgaw Karen). This has important consequences for deriving instances of double negation in Sgaw Karen

and French. In §2.7 I show that if two instances of contradictory negation are realized in separate extended projections not bound by agreement (or are not the product of NegP splitting), then they cancel each other out.

All forms of bipartite negation resulting from the AGREE operation are such that the highest constituent in the agreement chain is uninterpretable for negation and possibly null, and the lower constituent or constituents are interpretable for negation and overt. There is only downward probing. The highest overt member of the agreement chain is optional, albeit for different reasons in different languages, to be discussed in forthcoming chapters.

I now turn to discussing NegP splitting. NegP splitting as it is used here is similar in scope to how the term is used in Poletto (2008) and de Clercq (2013) with some differences in execution. I argue that a single extended projection of negation is built in a parallel domain to the clausal spine, similar to frameworks such as Vergnaud and Zubizarreta (2001) and Megerdoomian (2008) where nominal and verbal extended projections are built in parallel domains. The negation phrase grows to Neg2^0 and the clausal spine to TP (88). To mark sentential negation, Neg2^0 merges with TP and projects Neg2P. The two features [iNEG1] and [iNEG2] are realized in the clausal spine, and I assume that the features in the extended projection of negation built in the separate workspace are discharged in the sense that they are no longer realized in the separate NegP domain.

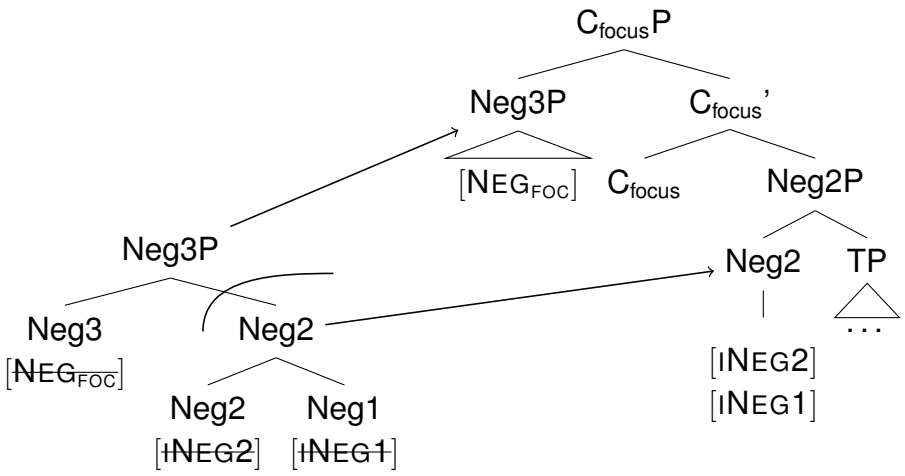
(88) Neg2 Merges with TP



Neg2^0 in (88) bears interpretable negative features, although Neg2^0 may also bear uninterpretable features as in English (76) and Sgaw Karen (85).

When negation targets an antecedent, specifically with negative polarity emphasis, the separate extended projection of negation builds up to Neg3P and the clausal spine builds up to the CP domain. Neg3^0 in this instance bears the [NEG$_{FOC}$] feature necessary for targeting an antecedent. Neg3P, which includes Neg2^0 and Neg1^0, is merged in the clausal spine, and the [NEG$_{FOC}$] feature is transferred to the clausal spine and discharged in the extended projection of negation.

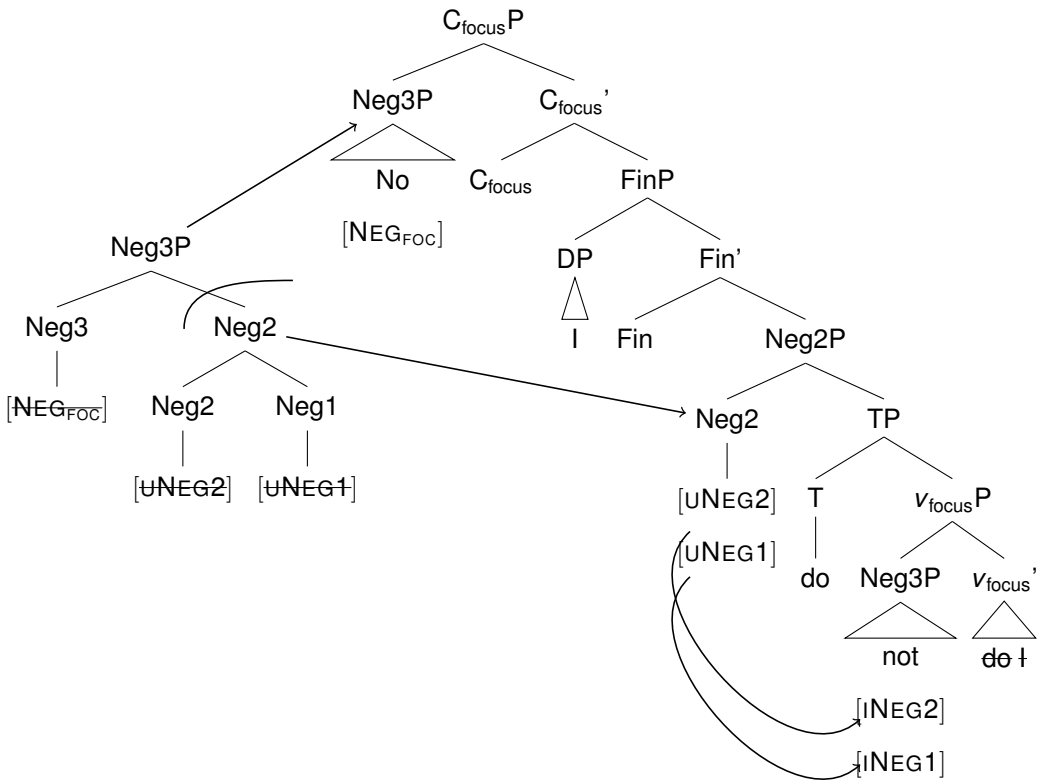
(89) NegP Splitting



An example of NegP splitting with negative polarity emphasis is given for English in (90). In English, the separate extended projection of negation is built to the

null Neg2^0 which undergoes agreement with the structurally lower *not*. The separate extended projection of negation is then built to Neg3P, and the [NEG$_{FOC}$] feature needed to target an antecedent is transferred to the clausal spine and discharged in the extended projection of negation.

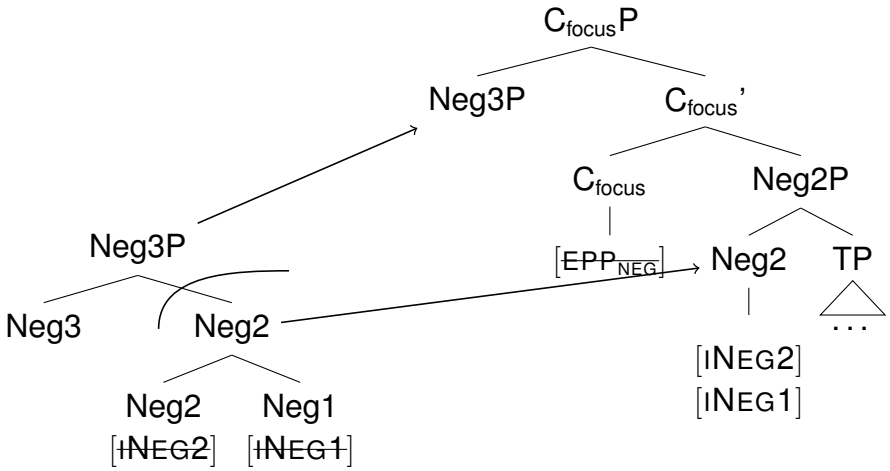
(90) **No** I do **not**!



The single interpretation of negation in (90) is due to the combination of the agreement relation between Neg2^0 and *not* and the NegP splitting operation, the feature [NEG$_{FOC}$] borne by *no* and the valued features [iNEG$_1$] and [iNEG$_2$] borne by Neg2^0 working in tandem to impart one instance of negation targeting an antecedent. As I show in chapter six for Ojibwe, it is not always the case that Neg3^0 has to realize [NEG$_{FOC}$], specifically in instances where negation does not target an antecedent. The extended projection of negation is built to Neg3P when an [EPP$_{NEG}$] feature is realized in C$_{focus}{}^0$ and Neg3P is needed to merge in this pro-

jection to check this feature off. The [EPP$_{NEG}$] feature is realized when sentential negation is present in the numeration and specifically for certain languages, namely Ojibwe.

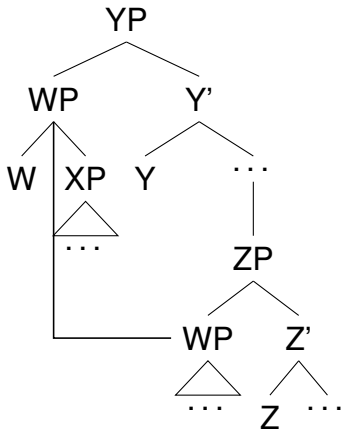
(91) NegP Splitting Without [NEG$_{FOC}$]



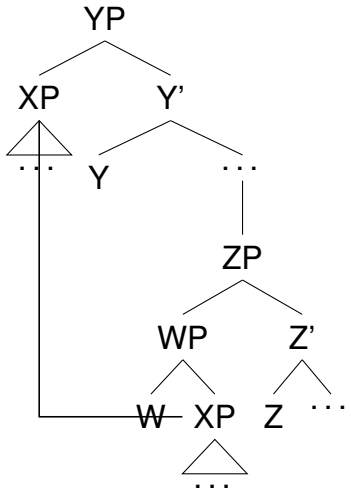
I discuss my motivations for positing the [EPP$_{NEG}$] feature in chapter six.

Bipartite negation qua NegP splitting should not be conflated with a hypothetical account of bipartite negation such that two copies in a movement chain are spelled out (see for example Nunes 2004 on the spell out of two members of an agreement chain). In all instances of Neg3P and Neg2^0 co-occurring, Neg3P realizes more internal structure than Neg2^0. In Barbiers (2009) and Barbiers et al. (2009) it is argued, convincingly in my opinion, that movement chains are such that the higher constituent either has the same or less internal structure than the lower constituent in the movement chain. The reasoning is that either the entire constituent may be copied (92) or just a subprojection of the constituent (93).

(92) Full Copying



(93) Partial Copying



This analysis explains restrictions on wh-chains in Dutch discussed in Barbiers et al. (2009) and the following paradigm of dutch pronoun copying (94) discussed in Barbiers (2009), where *ze* and *zij* are weak and strong pronouns respectively, the former having less syntactic structure than the latter, and the latter subsuming the syntactic tree of the former.

(94) adapted from Barbiers (2009, p. 16)

a. **Zij** heeft **zij** daar niks mee te maken.
she.STRONG has she.STRONG there nothing with to do
'She had got nothing to do with it.

b. **Ze** heeft **zij** daar niks mee te maken.
she.WEAK has she.STRONG there nothing with to do
'She had got nothing to do with it.

c. *__Zij__ heeft **ze** daar niks mee te maken.
she.STRONG has she.WEAK there nothing with to do
'She had got nothing to do with it.

Either a strong or a weak pronoun can double off of a strong pronoun (the differences due to dialectal variation) as the strong pronoun involves full copying (92) and the weak pronoun involves partial copying (93). A strong pronoun cannot double off of a weak pronoun because the strong pronoun has more internal syntactic

structure, and copying cannot add on additional syntactic structure. In all instances where NegP splitting is invoked in this thesis, the highest constituent in the clause has more internal syntactic structure than the lowest constituent, thus ruling out that the two constituents could be related via a movement chain.

2.7 Deriving Double Negation

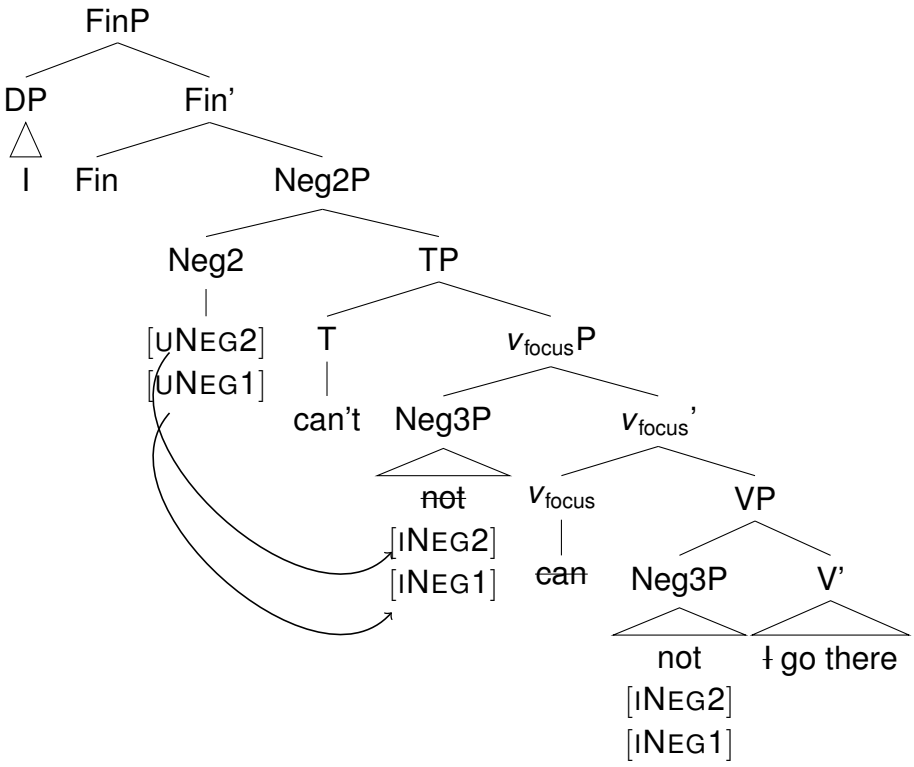
I discuss here how the framework derives instances of tautoclausal negation other than canonical bipartite negation, focusing here on double negation (mutual cancellation). Recalling discussion from §2.2.5, realizing a possibility modal with two contradictory negators flanking the modal results in a positive sentence realizing modal necessity (see Horn 1989, p. 218). (25) is repeated in (95).

(95) I ca**n't not** go there. = I must go there. $\neg\Diamond\neg = \Box$

I argue that in (95) *n't* is generated as *not* in Spec,v_{focus}P before undergoing m-merge (not depicted in (96)) and assume that the other *not* is lower, possibly in Spec,VP (see Holmberg 2016 for arguments that *not* can appear in two positions in the *v*P domain). The suffix *n't* values Neg2^0 responsible for imparting sentential negation, and I assume that the lower *not* cannot participate in the agreement chain as it is below v_{focus}P where AGREE stops[40].

(96) I can't not go there.

[40] I am not sure where *can* is base-generated in (96) and have it being base-generated in $v_{\text{focus}}{}^0$ for ease of exposition, noting that it could be base-generated lower in the tree.



The idea is that, since the two negators are not bound by agreement, they both impart their own instance of interpretable negation, and since they both impart contradictory negation (focus negators impart contradictory negation), the result is that there are two instances of contradictory negation which in turn cancel each other out. I assume that Neg2^0 scopes over *can* and the lower *not* under it, thus obtaining the semantics of modal necessity. The analysis of double negation in this framework is similar to the analysis of Holmberg (2016), the primary difference being the projections where *not* is realized as well as how the AGREE operation works. I discuss a similar scenario of double negation in Sgaw Karen in chapter three.

2.8 Conclusion

This chapter was intended to introduce the reader to the framework of negation in this thesis. A central goal of this chapter was to explicate and motivate the framework that I plan on using. I divided negators into a tripartition, adopting arguments from de Clercq (2013) that different classes of negators have differing internal structure. I also showed that each class of negator has a specific function and is associated with a specific position in the clausal spine (similar to de Clercq 2013). Also important to the analysis here are the two distinct syntactic mechanisms, AGREE and NegP splitting, needed to capture the full typology of bipartite negation. NegP splitting differs from negative agreement chains in that the two negative constituents are both interpretable (or become interpretable) for negation, whereas in agreement chains one member of the chain must bear uninterpretable features, rendering that constituent incapable of conveying negation on its own. The differences between bipartite negation arising from NegP splitting and from AGREE derive a number of syntactic and semantic differences in the typology of bipartite negation, to be explored in forthcoming chapters.

With the framework explicated, I now turn to discussing canonical bipartite negation in Sgaw Karen, French, and Ojibwe, pausing to discuss negative polarity emphasis in English in chapter five.

Chapter 3

Bipartite Negation in Sgaw Karen

3.1 Introduction

This chapter concerns the phenomenon of bipartite negation in Sgaw Karen[1], a Tibeto-Burman language spoken in Burma (Myanmar) with approximately 2,170,000 native speakers (Simons and Fennig, 2018). A sizeable population of Sgaw Karen speakers live in the Minneapolis-St Paul metropolitan area where I have undertaken fieldwork on this language. All Sgaw Karen examples in this chapter and throughout the thesis are taken from fieldwork unless otherwise noted.

Previous work on negation in Sgaw Karen includes descriptive work by Gilmore (1898), Jones (1961), Gibb (2011), and Shaw (2014). Manson (2017) gives a typological overview of negation in the Karen languages, including Sgaw Karen. The work in this chapter builds off of previous work of mine, including Tilleson (2013, 2015). Much of the analysis here differs markedly from my previous work.

I argue that bipartite negation in Sgaw Karen is the result of syntactic agreement. The two constituents taking part in bipartite negation are *tə1* and *bə5*, the former being obligatory and the latter optional in all instances of sentential negation

[1] This language is also spelled S'gaw Karen.

that I am aware of[2]. (2-b) is repeated from chapter one.

(2) a. jə1 nə2 pɨ2
I understand
'I understand.'

b. jə1 **tə1** nə2 pɨ2 (**bə5**)
I NEG understand NEG
'I don't understand.'

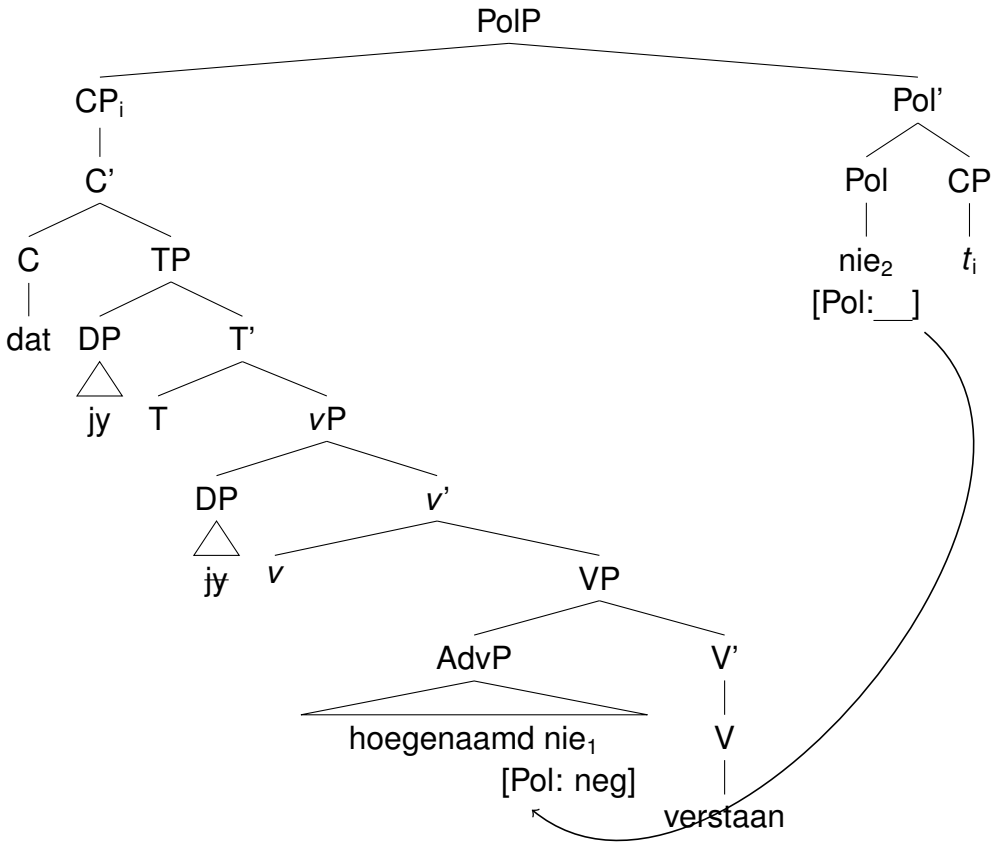
Although *bə5* is optional in all instances of sentential negation that I have tested, I do not gloss *bə5* as being optional in all examples, as I have not exhaustively gone through every example in this chapter to test if *bə5* is optional.

For Sgaw Karen I adopt a variant of the agreement analysis of Biberauer (2007) for bipartite negation in Afrikaans. Biberauer argues that nie_2 and nie_1, the number convention distinguishing these homophonous negators, occur in a downward probing agreement relation (3). Nie_2, bearing an unvalued [Pol:__] feature, probes its c-command domain and finds nie_1 bearing the interpretable [Pol:neg] feature. See Biberauer (2007) for motivations on why CP moves to Spec,PolP.

(3) Ek kan sien [dat jy hoegenaamd **nie$_1$** verstaan **nie$_2$**]
I can see that you totally NEG understand NEG
'I can see that you don't understand at all.' Biberauer (2007, p. 14)

[2]The optionality of *bə5* is discussed in Gibb (2011). Jones (1961) gives examples of *tə1* occurring without *bə5* (1).

(1) mi6 **tə1** ne2
sleep NEG get
'didn't get any sleep' adapted from Jones (1961, p. 52)

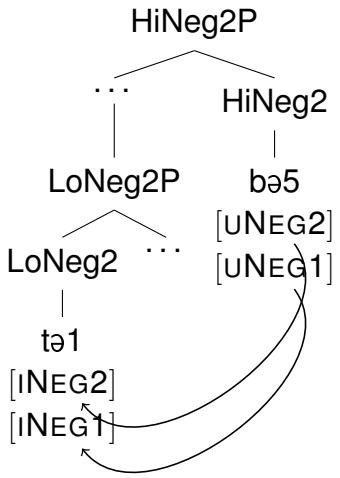


The primary difference between my analysis and Biberauer's is that the structurally higher negator bears two probes instead of one and the naming conventions for the features in the two frameworks are different. In §3.5 I show similarities and differences between bipartite negation in Sgaw Karen and Afrikaans.

I argue that *tə1* and *bə5* are interpretable and uninterpretable for negation respectively. *tə1* bears both [iNEG1] and [iNEG2] and *bə5* [uNEG1] and [uNEG2]. *bə5* is merged in Neg2P in the TP domain of the clause and initiates the AGREE operation due to its uninterpretable features. *bə5* gets both features valued by *tə1*, which I argue is a lo contradictory negator merged in a structurally lower Neg2P. I term the Neg2P where *bə5* is merged HiNeg2P and the Neg2P where *tə1* is merged LoNeg2P (4), this convention being used only for this chapter, essentially

to disambiguate the two Neg2P projections. In future chapters, I use the term Neg2P, equivalent to HiNeg2P in this chapter, to denote sentential negation. I argue in this chapter that HiNeg2P is head-final (4).

(4) Syntactic Agreement Between *bə5* and *tə1*



The evidence for there being two probes on HiNeg2^0 will not be made apparent for my analysis of bipartite negation in Sgaw Karen, but it will become apparent in chapter four for my analysis of bipartite negation in French. I assume that Neg2^0 bears the same features cross-linguistically. I leave open the possibility that for Sgaw Karen and possibly other languages the two negative probes fuse to form a single probe, similar to the analysis of Coon and Bale (2014) for phi-agreement[3]. This would result in a single [uNEG] feature responsible for imparting sentential negation.

This chapter is organized as follows. In §3.2 I discuss the cartography of Sgaw Karen, primarily to get the reader up to speed with the mixed head-directionality of the language. Mapping out the head-initial and head-final projections in Sgaw Karen is important for understanding the syntax of the negator *tə1*, as *tə1* appears left-adjacent to both head-initial and head-final constituents. In §3.3 I provide

[3]Thank you to Claire Halpert for pointing this possibility out to me.

the necessary diagnostics to show that *tə1* and *bə5* are interpretable and uninterpretable contradictory negators respectively. In §3.4 I discuss and analyze the syntax of bipartite negation in Sgaw Karen, arguing that the two negators exist in an agreement relation. In §3.5 I draw some parallels between bipartite negation in Sgaw Karen and Afrikaans, primarily to illustrate that the type of bipartite negation exhibited by Sgaw Karen appears to be present in other languages. I hold off on comparing Sgaw Karen with French and Ojibwe until forthcoming chapters. §3.6 concludes the chapter.

3.2 Cartography of Sgaw Karen

In this section I discuss the cartography of Sgaw Karen and set aside the syntax of negation for §3.3 and §3.4.

3.2.1 Light and Heavy Verbs

The basic word order in Sgaw Karen is SVO (5).

(5) a. jə1 ʔɔ5 pʰi1 sə5
I eat pizza
'I eat pizza.'

b. Mary lɔ6 ɣə6 Olivia
Mary look like Olivia
'Mary looks like Olivia.'

SOV word order occurs with the light verb *ʔo5*[4] 'have' (7).

(7) jə1 se1 ʔo5
I money have
'I have money.'

[4] ʔo5 is also a locative copula (6).

(6) Mary ʔo5 pʰɛ1 ʔi6
Mary is here
'Mary is here.'

I assume that *ʔo5* is head-final. I assume that it is possible that *ʔo5* and heads in general are head-initial and the order of object $>$ verb in (7) is due to movement in accordance with the Linear Correspondence Axiom (LCA) of Kayne (1994), although in §3.4.1 I argue against the analysis of Simpson (2001) deriving the head-final order of certain verbal elements in Southeast Asian languages via predicate raising in accordance with the LCA.

The causative verb *mə6* appears with adjectives (8-a)-(8-c) and verbs (8-d) forming a causative verb construction[5].

(8) Causative Verbs

a. mə6 θi1
CAUS dead
'to kill'

b. mə6 xe1
CAUS dry
'to dry'

c. mə6 b^{w}a1
CAUS tame
'to tame'

d. mə6 θe5 nɔ5
CAUS remember
'to remind'

I analyze *mə6* as heading a *v*P immediately dominating VP in (8-d) (similar to other analyses of causatives, see Folli and Harley 2007). More specifically, I term this projection v_{CAUS}P to disambiguate it from v_{HAVE}P, the projection housing *ʔo5* 'have.' I adopt the analysis of Gilmore (1898) and Jones (1961) that adjectives are verbs in Sgaw Karen, and thus all examples in (8) involve *mə6* modifying a verb. I assume that apparent adjectives in Sgaw Karen head V^{0}. One piece of evidence that Sgaw Karen lacks a dedicated adjective class is that Sgaw Karen

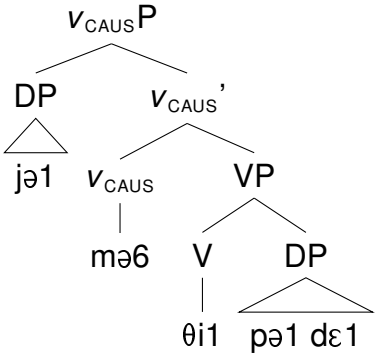
[5]See information in Gilmore (1898) for causative verb constructions beginning with *mə6* and other morphemes. I focus here on the causative verb *mə6*.

lacks attributive adjectives (see Gilmore 1898 and Jones 1961). Relative clauses function as the equivalent of an attributive adjective modifying a noun[6,7] (9).

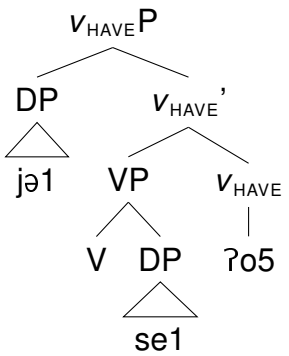
(9) pʷə6 lɤ1 ʔə1 tə1 θə4 pʷi1 bə5
person COMP 3SG NEG happy NEG
'the person who isn't happy' (the unhappy person)

(10) illustrates a sentence realizing v_{CAUS}P and (11) v_{HAVE}P. For ease of exposition, I leave out phrases in tree diagrams not including any lexical material, although I make exceptions for this convention later on when necessary. I abstract away from where the subject is base-generated and show it as being base-generated in the specifier position of any light verb phrase that is projected. In forthcoming examples I assume that the subject moves to Spec,FinP, not depicted in (10) and (11). I assume that Sgaw Karen does not realize head movement, the lack of head movement depicted in (11), given the lack of verbal inflection and lack of inversion in questions (more on the syntax of questions later). (7) is repeated in (11).

(10) jə1 mə6 θi1 pə1 dɛ1
I CAUS dead rabbit
'I'm killing the rabbit.'



(11) jə1 se1 ʔo5
I money have
'I have money.'



[6]This point is noted in Gilmore (1898) and Jones (1961), although not in the terms presented here.

[7]*ʔə1*, shown in (9), is the equivalent of the third person singular non-gendered pronoun *ʔə1 wɛ1* in fast speech (Jones, 1961).

3.2.2 Modals

Sgaw Karen realizes both pre- and post-verbal modals, similar to other Southeast Asian languages (see Simpson 2001). All post-verbal modals in Sgaw Karen are root possibility modals, roughly equivalent to 'can' in English. I focus here on two constituents occupying this projection, *θe1* and *bə5*[8], as these constituents show up in forthcoming examples. I highlight *bə5* as I argue in §3.4 that instances of *bə5* qua sentential negator and *bə5* qua modal are potentially related. *θe1* has both ability (12-a) and permission (12-b) readings.

(12) Post-verbal Modal *θe1*

a. nə1 so3 tʰɨ5 **θe1** (se2 kɔ4) hə1
you lift bag can Q
'Can you lift the bag?'

b. jə1 kə1 lɛ6 mu4 θə4 pʰʷi1 kʰɛ1 mɨ2 sʰe5 **θe1** (se2 kɔ4) hə1
I will go party tomorrow can Q
'Can I go to the party tomorrow?'

(Do I have permission to go to the party?)

bə5 is used as an ability modal (13)[9].

(13) Post-verbal Modal *bə5*

a. nə1 tɛ1 tə1 rɨ4 klo3 **bə5** hə1
you speak Chinese language can Q
'Can you speak Chinese?'

b. jə1 ɣɛ6 kə1 li5 **bə5**
I dance can
'I can (am physically able to) dance.'

The position of root possibility modals in Sgaw Karen is similar to other Southeast

[8]See Gilmore (1898, p. 42) for other examples of post-verbal root possibility modals, which he refers to as 'verbal idioms.' Some of the information discussed here can be found in both Gilmore (1898) and Jones (1961), although the descriptions for *θe1* and *bə5* presented here are not entirely equivalent with their analyses.

[9]Consultants reject (13-b) as having a deontic reading where *bə5* is used to ask for permission.

Asian languages (Simpson, 2001) where this type of modal is post-verbal[10] (14).

(14) adapted from Simpson (2001, p. 90)

a. khaw khian **dai** [Thai]
he write can
'He can write.'

b. goa'at root-ut **baan** [Cambodian]
he run can
'He can run.'

c. anh-ta den **duoc** [Vietnamese]
he come can
'He can come.'

Post-verbal modals in Sgaw Karen follow objects (12-a)- (13-a) and adjuncts (12-b). They also follow the light verb *ʔo5* 'have' which appears after objects (15).

(15) nə1 t^{hw}i5 ʔo5 **θe1**
you dog have can
'You can (are allowed to) have a (pet) dog.'

A question arises as to where post-verbal modals are projected in the clause. One option would be to follow Cheng and Sybesma (2003) and analyze the modal as being structurally lower than the verb, a case of 'forked' modality. Under this analysis, the modal takes scope over the verb phrase at LF. Cheng and Sybesma (2003) argue that the post-verbal modal *dak* in Cantonese (16) is structurally below the verb.

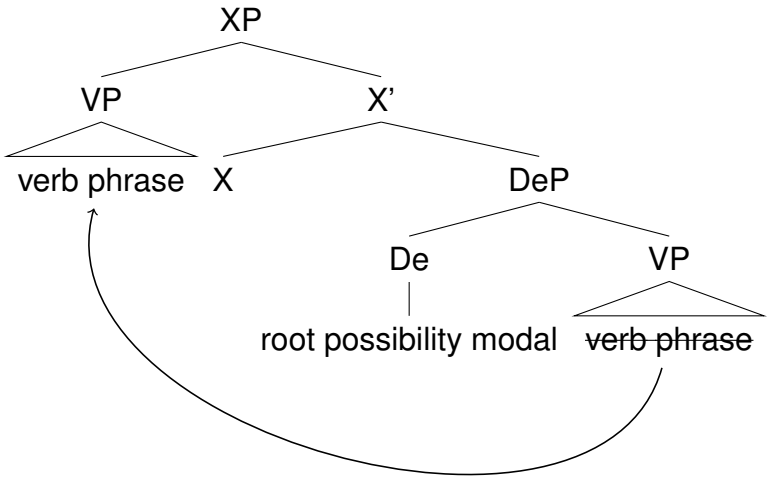
(16) keoi lo-**dak**-hei li seung syu
3SG take-*dak*-up this box books
'S/he can lift this box of books.' Cheng and Sybesma (2003, p.13)

I refer the reader to Cheng and Sybesma (2003) for arguments in favor of the forked modality approach.

[10] Simpson analyzes the modals in (14) as imparting alethic modality, although they could also be analyzed as root possibility modals.

The second option, and the one that will be adopted here, is that post-verbal modals dominate verbs, as in Simpson (2001). Simpson posits a projection DeP[11] above VP which houses post-verbal modals in various Southeast Asian languages. In accordance with the LCA of Kayne (1994), Simpson posits that VP moves to a higher Spec position above DeP to account for the order of verb phrase $>$ root possibility modal (17)[12].

(17) adapted from Simpson (2001)



I do not adopt the LCA-style analysis of deriving the position of post-verbal modals. I assume that post-verbal modals are head-final, similar to the analysis of Erlewine (2017). In §3.4.1 I argue that Simpson's analysis cannot be ported over to Sgaw Karen for reasons having to do with the position of the negator *tə1* in the clausal spine.

There are two reasons why I adopt an approach like Simpson's, where the post-

[11] Simpson terms the projection DeP for the projection housing post-verbal modals. He bases this naming convention after the fact that modals inhabiting this projection derive from the Middle Chinese modal *dai* meaning 'can.' I choose to use the term RootPosP (Root Possibility Phrase) in forthcoming examples as I believe it is more transparent to the meaning of this projection.

[12] (17) leaves out some information about where the subject is base-generated and moves to, crucial for Simpson's analysis, but not crucial for the analysis here.

verbal modal dominates the verb phase, modulo the LCA-style movement. First, in Sgaw Karen, root possibility modals follow direct objects, as well as adjuncts. In the forked modal contexts discussed in Cheng and Sybesma (2003), the modal precedes the direct object (16). For this reason, the forked modality analysis of Cheng and Sybesma (2003) does not carry over straightforwardly to Sgaw Karen. Second, in answers to questions in Sgaw Karen, the highest verbal element in the string is repeated[13] (as in other Southeast Asian languages, see discussion in Simpson (2001) and Holmberg (2016) for the syntax of answers in Thai). Sgaw Karen is an example of a verb-echo language as per the diagnostics of Holmberg (2016) and sources cited therein. Simpson (2001) applies this test to Thai to show that the post-verbal modal is higher than the verb. In response to a question (18-a), the post-verbal modal (18-b), and not the main verb (18-c), is repeated. Repeating the post-verbal modal, specifically without negation, indicates a positive response. (18) is adapted from Simpson (2001, p. 94).

(18) a. A: khaw phutt phasaa thai **dai** mai
he speak language thai can Q
'Can he speak Thai?'

b. B: dai
can
'Yes'

c. B: *phuut
speak
Intended: 'Yes'

In parallel examples in Sgaw Karen (19), the post-verbal modal (19-b) and not the main verb (19-c) is repeated, signaling that the modal is higher than the verb. (12-a) is repeated in (19).

[13]Gilmore (1898) discusses these facts for Sgaw Karen without specifically noting that it is the highest verbal element that gets repeated.

(19) a. A: nə1 so3 tʰɨ5 **θe1** (se2 kɔ4) hə1
you lift bag can Q
'Can you lift the bag?'

b. B: θe1
can
'yes'

c. B: *so3
lift
Intended: 'yes'

I discuss verb-echo and other forms of positive and negative replies in §3.3.

Furthermore, when a post-verbal modal occurs with the light verb *ʔo5* 'have' in a question (20-a), a felicitous response requires repeating the modal (20-b) and not *ʔo5* (20-c), signaling that the post-verbal modal is higher. (20) is (15) converted into a question.

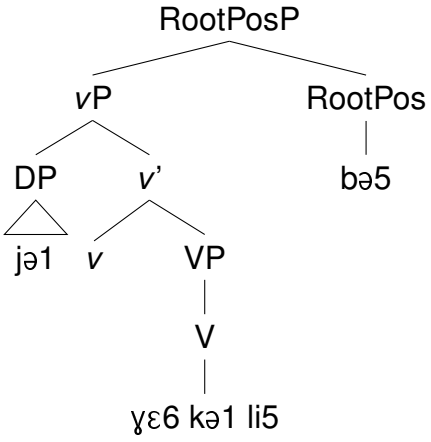
(20) a. A: nə1 tʰʷi5 ʔo5 **θe1** hə1
you dog have can Q
'Can you (are you allowed to) have a (pet) dog?'

b. B: θe1
can
'yes'

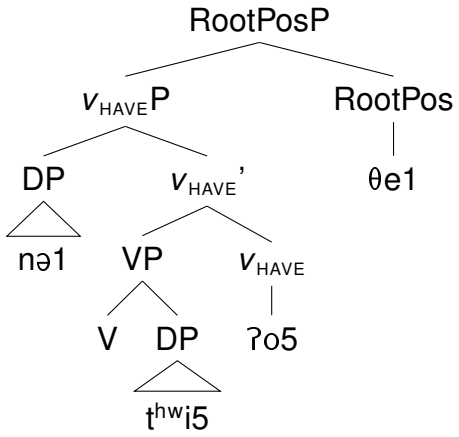
c. B: *ʔo5
have
Intended: 'yes'

I posit a Root Possibility Phrase (RootPosP) housing post-verbal modals immediately dominating the *v*P domain. (13-b) and (15) are repeated in (21) and (22) respectively.

(21) jə1 ɣɛ6 kə1 li5 **bə5**
I dance can
'I can dance.'



(22) nə1 tʰʷi5 ʔo5 **θe1**
you dog have can
'You can have a dog.'



All non-root possibility modals in Sgaw Karen appear pre-verbally, similar to other Southeast Asian languages (see Simpson 2001). Pre-verbal modals impart epistemic necessity and possibility, as well as root necessity. Pre-verbal modal *bə5*, as opposed to post-verbal *bə5* mentioned previously, is ambiguous between having a reading of epistemic necessity and possibility (23-a) and (23-b)[14]. It also has a reading of root necessity (24-c)[15].

(24) a. tə2 **bə5** hɛ1su6
EXPL.SUBJECT must rain
'It might/must be raining.' EPISTEMIC NECESSITY/POSSIBILITY

b. ʔə1 wɛ1 **bə5** me2 tə2 bla5
he must be thief
'He might/must be the thief.' EPISTEMIC NECESSITY/POSSIBILITY

[14]Sgaw Karen is not unique in having a modal that is ambiguous between having a reading of epistemic necessity and possibility. St'át'imcets collapses this distinction as well, as noted in Matthewson et al. (2007).

(23) t'cum **k'a** kw s-John
win(MID) INFER DET NOM-Jon
'John must/may have won.'

Matthewson et al provide an analysis of modals which derives the necessity/possibility ambiguity. I will not expound on their analysis here as it goes beyond the scope of the discussion.

[15]The meaning of pre-verbal *bə5* is discussed in Gilmore (1898) and Jones (1961), although not in the terms presented here.

c. nə1 tə1 **bə5** lɛ6 lɤ1 mu4 θə4 p^{hw}i1 bə5
you NEG must go to party NEG
'You must not (are not allowed to) go to the party.' ROOT NECESSITY

An important takeaway is that *bə5* is something of an all-purpose modal, straddling the root/epistemic and necessity/possibility divides, as evidenced by (24) and its root possibility use (13). It does not cover all modal meanings, however. *bə5* forms a minimal pair with *lo5* 'need,' the former scoping over (25-a) and the latter under (25-b) negation. □ conveys modal necessity in (25) and forthcoming examples[16].

(25) a. nə1 tə1 **bə5** lɛ6 lɤ1 mu4 θə4 p^{hw}i1 bə5
you NEG must go to party NEG
'You must not (are not allowed to) go to the party.' □ > ¬

b. nə1 tə1 **lo5** lɛ6 lɤ1 mu4 θə4 p^{hw}i1 bə5
you NEG need go to party NEG
'You need not (don't have to) go to the party.' ¬ > □

Other modals include the weak necessity modal *krɤ4*[17] and the root possibility modal *θe1* (12-a), among other root possibility modals discussed in Gilmore (1898) and Jones (1961)[18].

I follow Simpson (2001) in positing a projection housing pre-verbal modals, which I term ModalP, this projection being where all modals other than root possibility modals are generated. Following Simpson, I assume that pre-verbal modals dominate post-verbal modals, as root possibility modals appear lower than other

[16] *lo5* is analyzed as a necessity modal in (25-b) as *lo5* is also used as a lexical verb meaning 'to need.' As the standard analysis of *need* in English and other languages that exhibit this ambiguity treats the modal as being a necessity modal (see Iatridou and Zeijlstra 2013), I choose to analyze *lo5* as a necessity modal. Thus, negation scopes over *lo5* in (25-b), and it is not the case that *lo5* is a possibility modal scoping over negation.

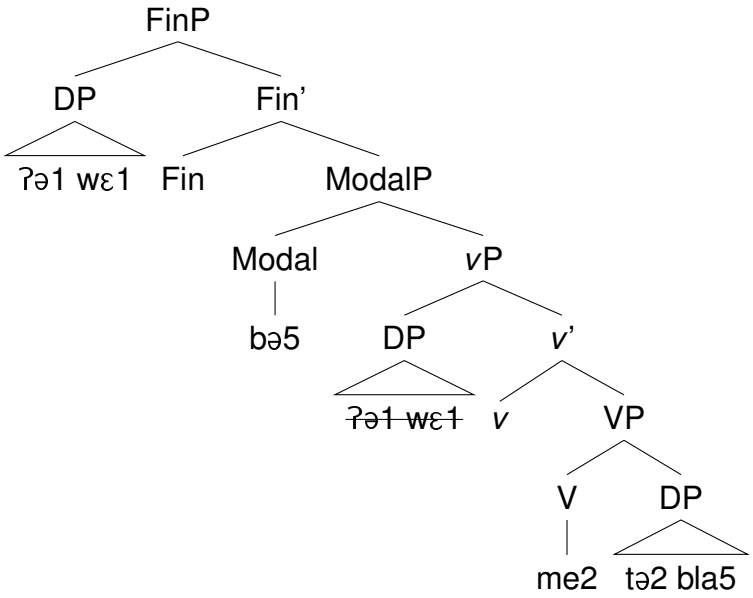
[17] The meaning of krɤ4 is illustrated in (26):

(26) k^{h}ɛ1 mɨ2 s^{h}e5 mu4 θə4 p^{hw}i1 **krɤ4** kɛ1 t^{h}ɔ5 lɔ6
tomorrow party should happen DECL
'The party should happen tomorrow.'

[18] Gilmore and Jones do not employ the term 'root possibility modals' but give comparable examples.

modals cross-linguistically (see Cinque 1999 and arguments in Simpson 2001). I assume that subjects move to Spec,FinP, as discussed in chapter two for English. It is not clear if Fin^0 is head-initial or head-final, and I assume that it is head-initial (I am unaware of any overt constituents inhabiting Fin^0). (24-b) is repeated in (27)[19].

(27) ʔə1 wɛ1 **bə5** me2 tə2 bla5
he must be thief
'He might/must be the thief.'



3.2.3 Force Markers

Constituents marking the force of the clause appear clause-finally. I make salient the position of force markers as they are important for diagnosing the base-merge position of the negator *bə5* in §3.4. The position and meaning of these constituents is discussed in both Gilmore (1898) and Jones (1961), and most of the information here can be found in these sources. Declarative sentences optionally end with the constituent *lɔ6* (28). I analyze this constituent as marking declarative force as per Gilmore (1898) as it does not appear in other clause types (interrogative,

[19]It is not clear if the verb *me2* meaning 'to be' is a light verb inhabiting its own projection or not. I assume it heads V^0. Nothing crucial in this analysis hinges on this assumption.

imperative, etc). Jones (1961) analyzes *lɔ6* as a narrative marker for reasons not discussed here.

(28) a. bə5 θe5 θe5 tə2 hɛ1su6 (**lɔ6**)
maybe EXPL.SUBJECT rain DECL
'Maybe it is raining.'

b. Mary me2 Olivia wɛ2 mɨ5 (**lɔ6**)
Mary is Olivia older sister DECL
'Mary is Olivia's older sister.'

Polar questions end with either the constituent *hə1* alone or with *se2 kɔ4* preceding it[20]. *se2 kɔ4* is optional in every instance I have tested on consultants, and in most instances consultants will use *hə1* alone.

(29) a. nə1 lo3 kʷɛ1 pʰlɤ5 tʰu1 (**se2 kɔ4**) **hə1**
you play soccer Q
'Do you play soccer?'

b. nə1 kə1 hɛ1 (**se2 kɔ4**) **hə1**
you will come Q
'Are you coming?'

Wh-questions end with the constituent *lɛ5*.

(30) a. nə1 mə6 te2 mə1 nɨ6 **lɛ5**
you do PST what WH-Q
'What did you do?'

b. nə1 me2 mə1 tə6 **lɛ5**
you be who WH-Q
'Who are you?'

Negative imperatives end with the fossilized constituent *tə1 ɣe6* literally meaning 'not good[21]'.

(31) a. ko2 **tə1 ɣe6**
worry not good
'Don't worry.'

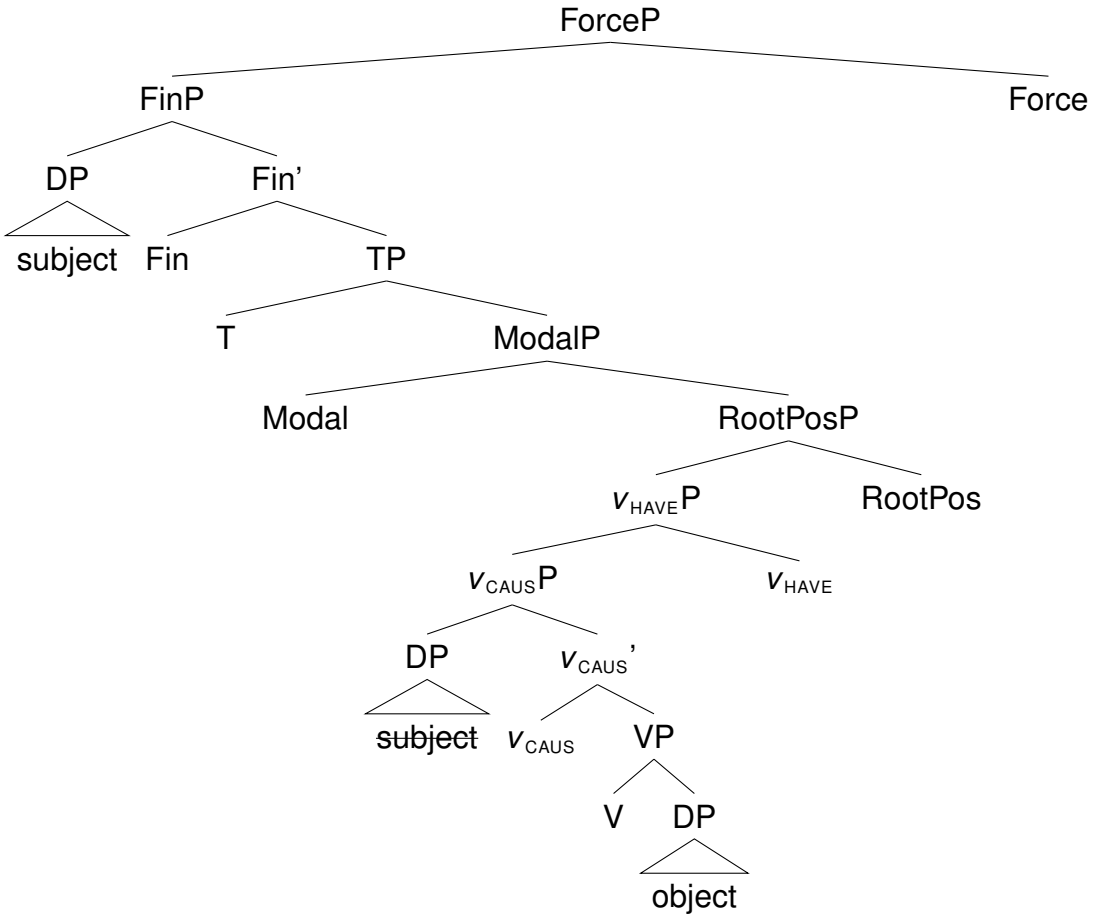
b. ʔɔ1 θi4 **tə1 ɣe6**
drink alcohol not good
'Don't drink alcohol.'

[20]The optional constituent *se2 kɔ4* is not discussed in either Gilmore (1898) or Jones (1961).
[21]That *tə1 ɣe6* means 'not good' is mentioned in both Gilmore (1898) and Jones (1961).

I mention negative imperatives here mostly in passing as the focus here is on analyzing bipartite negation in Sgaw Karen.

As mentioned previously, the constituents marking the force of the clause are always clause-final. I posit that these constituents are realized in a head-final ForceP. (32) models the cartography of Sgaw Karen leaving out the phrases hosting negation, to be discussed in §3.4. I model the subject as being base-generated in Spec,v_{CAUS}P and v_{HAVE}P as dominating v_{CAUS}P, although nothing crucial hinges on this analysis. I assume that TP in Sgaw Karen is head-initial, although Sgaw Karen lacks constituents heading T^0. I argue in Appendix A that tense particles in Sgaw Karen are adverbs.

(32) Cartography of Sgaw Karen



With the cartography of Sgaw Karen established, I now turn to discussing bi-

partite negation in Sgaw Karen.

3.3 The Status of *tə1* and *bə5*

3.3.1 *tə1* is an Interpretable Contradictory Negator

I argue that *tə1* is a contradictory negator interpretable for negation. In §3.4 I argue that *tə1* is specifically a lo contradictory negator. That *tə1* is an interpretable contradictory negator is evidenced by the fact that it can signal sentential negation on its own, as has been illustrated by the optionality of *bə5* with sentential negation. (2-b) is repeated in (33).

(33) jə1 **tə1** nə2 pɨ2 (**bə5**)
I NEG understand NEG
'I don't understand.'

Recall from discussion in chapter two that sentential negation is a type of contradictory negation (see also de Clercq 2013). *tə1* cannot be a contrary negator as contrary negators cannot on their own perform the function of signaling sentential negation (see discussion in chapter two).

I argue that *tə1* is not a focus negator. I make this apparent as lo focus negators can also signal sentential negation, as is the case with English (recall discussion in chapter two), so it is necessary to show that *tə1* is not a focus negator. *tə1* does not pass the diagnostics of being a focus negator. It cannot be used contrastively, with or without *bə5* (34-a). Contrastive negation takes the form of the 'not X, but Y' construction. Only focus negators can be used contrastively. The equivalent of using contrastive negation in Sgaw Karen is to negate the antecedent within the sentence (34-b). (34-b) realizes a pro-dropped subject.

(34) a. ***tə1** John (bə5), bə5 s^{h}ə5 Maria
NEG John NEG, but Maria
Intended: not John, but Maria

b. **tə1** me2 John (bə5), bə5 s^{h}ə5 me2 Maria
NEG is John NEG, but is Maria
'It is not John, but Maria'

tə1 cannot be used in the 'why not' construction, with or without *bə5* (35-b). Only focus negators can be used in the 'why not' construction (recall discussion in chapter two). The equivalent of the 'why not' construction in Sgaw Karen involves repeating at least the main verb of the sentence (35-c). (35-b) and (35-c) are replies to (35-a).

(35) a. jə1 **tə1** ʔɛ5 do4 lɛ6 bə5
I NEG want go NEG
'I don't want to go.'

b. *bə5 mə1 nɤ6 xo1 **tə1** (bə5)
why NEG
Intended: 'Why not?'

c. bə5 mə1 nɤ6 xo1 **tə1** lɛ6 bə5 lɛ5
why NEG go NEG WH-Q
'Why not go?'

tə1 cannot be used in isolation as a negative reply, which is performed by specifically hi focus negators. As was mentioned previously, Sgaw Karen employs verb-echo responses to questions (36). Negative responses involve repeating and negating the highest verbal element (36-c), where *bə5* is optional. I assume that the syntax of negative responses involves only sentential negation, similar to the analysis of Simpson (2001) for other Southeast Asian languages. (19-a) is modified and repeated in (36).

(36) a. A: nə1 so3 t^{h}ɨ5 θe1 (se2 kɔ4) hə1
you lift bag can Q
'Can you lift the bag?'

b. B: θe1
   can
‘yes’

c. B: **tə1** θe1 (**bə5**)
   NEG can NEG
‘no’

It is also possible to answer a question (37-a) with either *me2* ‘yes’ (37-b) or *tə1 me2* (*bə5*) ‘no’ (37-c).

(37) a. A: nə1 so3 tʰɨ5 **θe1** (se2 kɔ4) hə1
   you lift bag can Q
‘Can you lift the bag?’

b. B: me2
   yes
‘yes’

c. B: **tə1** me2 (**bə5**)
   NEG yes NEG
‘no’

I assume that *tə1 me2* (*bə5*) is a complex constituent, specifically a negation of *me2*. Under this assumption, Sgaw Karen does not have a dedicated negative polarity particle/hi focus negator.

Furthermore, to the best of my knowledge, Sgaw Karen does not have anything like negative polarity emphasis realizing two negators, one of which must be a hi focus negator.

3.3.2 *bə5* is an Uninterpretable Contradictory Negator

I argue that *bə5* is an uninterpretable contradictory negator. The fact that *bə5* cannot mark sentential negation on its own (38) shows that *bə5* must be uninterpretable if it is to be analyzed as a contradictory negator (more on this in a bit)[22].

[22](38) is fine on the interpretation of ‘I can (am physically able to) understand,’ where *bə5* is interpreted as a root possibility modal.

(38) *jə1 nə2 pɨ2 **bə5**
I understand NEG
Intended: 'I don't understand.'

The main argument that *bə5* is a contradictory negator derives from the fact that it appears in a dedicated position in the clausal spine when co-occurring with the negator *tə1*, specifically the same position where sentential negation is marked in other languages, this information to be elaborated on in §3.4. It is important not to conflate the post-verbal modal *bə5* and the negator *bə5*, both of which appear post-verbally. The two constituents can appear in tandem (39)[23,24], indicating that they occupy different syntactic projections.

(39) jə1 pʰə4 tə1 **bə5 bə5**
I read NEG can NEG
'I cannot read it.' (object is pro-dropped).

adapted from Gilmore (1898, p. 43)

bə5 is neither a contrary negator nor a focus negator[25]. It only appears in tandem with *tə1* to mark sentential negation and has no other functions beyond this. Furthermore, *bə5* does not mark emphatic negation, meaning specifically where negation does not hold even to the most minimal extent. The requisite test for diagnosing emphatic negation is taken from Larrivée (2014) and is illustrated for English in (41), this test introduced in chapter two. Emphatic negation (41-b), unlike canonical negation (41-a), does not permit exceptions (41-b).

[23]The consultants that I have worked with often find having two instances of *bə5* at the end of the sentence to be somewhat awkward, but possible.

[24](39) illustrates that Sgaw Karen realizes radical pro-drop, meaning that object pro-drop is possible.

[25]*bə5* can be used as a reply to a question and means 'correct' (40), which may seem somewhat odd given that this is a positive response and that *bə5* is typically used negatively.

(40) **bə5** lɔ6
correct DECL
'That's correct.'

I assume that *bə5* in (40) is a lexical item separate from the modal and negator uses of *bə5*.

(41) English Emphatic Negation

a. I didn't sleep last night . . . well, maybe for two hours.

CANONICAL NEGATION

b. I didn't sleep at all last night . . . #well, maybe for two hours.

EMPHATIC NEGATION

The corresponding test for Sgaw Karen is shown in (42). *nɔ1 tə1 sɛ4* in (42-b) is responsible for imparting emphatic negation[26], not *bə5* (which is optional).

(42) Sgaw Karen Emphatic Negation

a. pʰɛ1mə1 nə6 ne5 jə1 **tə1** mi1 (**bə5**) . . . bə5 θe5 θe5 kʰi1 nə5 ri5
last night FOCUS I NEG sleep NEG . . . maybe two hour
'I didn't sleep last night . . . (well) maybe two hours.'

b. pʰɛ1mə1 nə6 ne5 jə1 **tə1** mi1 nɔ1 tə1 sɛ4 (**bə5**)
last night FOCUS I NEG sleep not at all NEG
. . . #bə5 θe5 θe5 kʰi1 nə5 ri5
. . . maybe two hour
'I didn't sleep last at all last night . . . #(well) maybe two hours.'

That *bə5* appears in any sentence marking sentential negation is evidence that it does not mark emphatic negation, given that every instance of sentential negation cannot plausibly be analyzed as emphatic negation[27].

I conclude that *bə5* is an uninterpretable contradictory negator. Its only use as a negator is to mark sentential negation, and given that it cannot mark negation on its own and is parasitic on the realization of *tə1*, I conclude that *bə5* is uninterpretable for negation.

[26]This fact is discussed in Jones (1961).

[27]Kahrel (1996) makes a similar argument for the languages exhibiting bipartite negation he discusses.

3.4 The Syntax of Bipartite Negation

This section is organized as follows. I discuss *tə1* and *bə5* in §3.4.1 and §3.4.2 respectively, diagnosing specifically where each negator is merged. In §3.4.3 I put forth arguments that *tə1* and *bə5* exist in an agreement relationship and argue against other possible approaches to analyzing bipartite negation in Sgaw Karen. I briefly discuss DP-internal negation in §3.4.4, mainly to point out that *tə1* and *bə5* are associated specifically with the clausal spine.

3.4.1 The Syntax of *tə1*

I discuss the syntax of *tə1* as both a marker of sentential and sub-sentential negation, holding off on discussion of sub-sentential negation until later in this section. *tə1*, when signaling sentential negation, appears left-adjacent to the highest verbal element, with few exceptions (more on this in a bit). *tə1* appears left-adjacent to verbs (43-a), the causative morpheme *mə6* (43-b), the light verb *ʔo5* which follows the object (43-c), and post-verbal (43-d) and pre-verbal (43-e) modals[28].

(43) a. jə1 **tə1** θe5 ɲa1 bə5
I NEG know NEG
'I don't know.'

b. jə1 **tə1** mə6 θi1 pə1 dɛ1 bə5
I NEG CAUS death rabbit NEG
'I'm not killing the rabbit.'

c. jə1 se1 **tə1** ʔo5 bə5
I money NEG have NEG
'I don't have money.'

d. jə1 lɛ6 **tə1** θe1 bə5
I go NEG can NEG
'I cannot go.'

[28](43-d) is also used as an example in Jones (1961), (43-d) being taken from my own data.

e. nə1 **tə1** bə5 lɛ6 lɤ1 mu4 θə4 p^{hw}i1 bə5
you NEG must go to party NEG
'You must not (are not allowed to) go to the party.'

In certain circumstances, it is possible for *tə1* to appear left-adjacent to a lower verbal element marking sub-sentential scope, to be discussed in the next section. An important aspect of (43) is that *tə1* appears in a variable position in the clause. For example, *tə1* appears before the object in (43-b) and after it in (43-c).

Jones (1961) analyzes *tə1* as being prefixed to the linearly final verbal element in the clause. This obtains the proper order in examples like (43-d), but not (43-e), although he does not discuss, to the best of my knowledge, negation with pre-verbal modals.

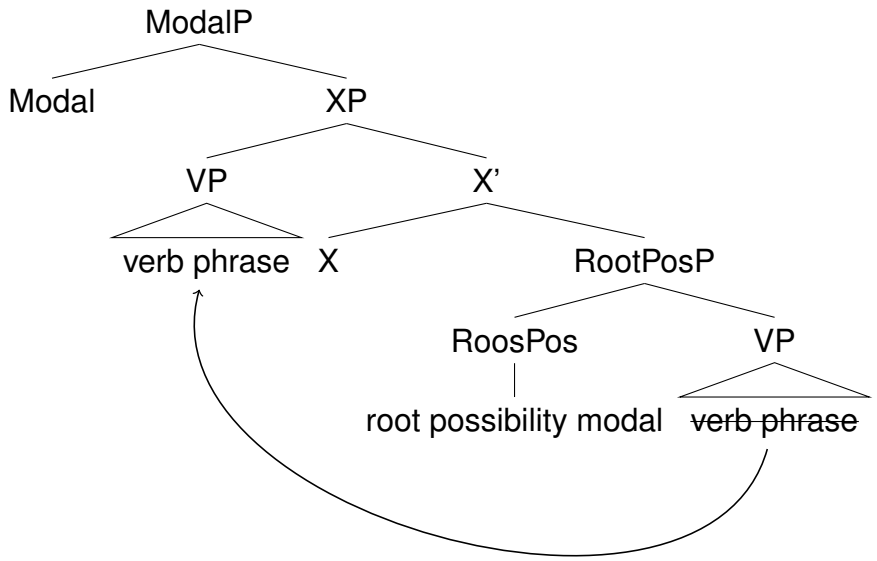
The question arises as to where *tə1* is base-generated. I argued previously that *tə1* cannot be a focus negator. As focus negators are the only XP category of negation in my framework, it follows that *tə1* cannot merge in a Spec position. One possibility to entertain is that both focus and contradictory negators can be XPs, although I believe this move would weaken the predictions made in chapter two. I maintain that *tə1* is not an XP negator.

Another possibility is that *tə1* heads its own dedicated projection, perhaps quite low in the clause, and that higher verbal elements (such as modals) pick up *tə1* as they move up the tree. I believe that this is an undesirable move. There is scant evidence of head movement in Sgaw Karen, given the total lack of inflection and the lack of inversion in questions. I thus rule out *tə1* attaching to a verbal element via head movement.

I also rule out that the position of *tə1* is syntactically invariant and that the linearly variant position of *tə1* is due to predicate raising in a manner similar to Simpson (2001) such that *tə1* following the verb phrase is due to the verb phrase moving above *tə1*. Recalling previous discussion, the order of verb $>$ root possibility modal in Southeast Asian languages in Simpson's framework is derived via the VP mov-

ing to a higher projection than the one hosting the root possibility modal. Simpson argues further that the pre-verbal modal is higher than the projection where the verb phrase lands in order to get the order of pre-verbal modal $>$ verb phrase to work out. (44) adapts Simpson's movement account to this framework.

(44)

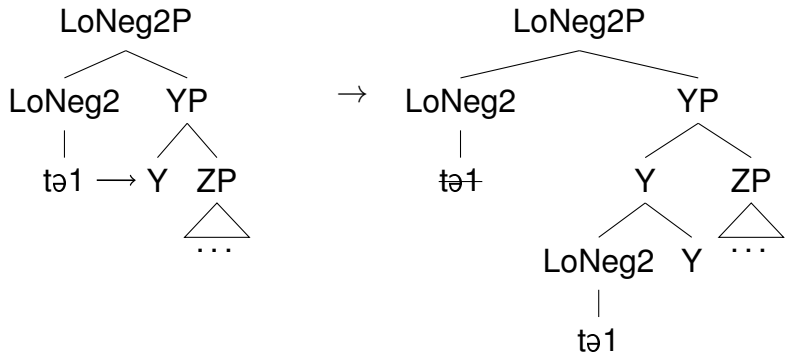


For *tə1* to precede pre-verbal and post-verbal modals, it would have to be the case that *tə1* is generated above ModalP when a pre-verbal modal is present and below XP and above RootPosP when the post-verbal modal is the highest verbal element. This would mean that the position of *tə1* is syntactically variant. I furthermore argue against the possibility that *tə1*, specifically *tə1* signaling sentential negation (more on *tə1* marking sub-sentential negation in a bit), can be generated in more than one position, which would weaken the claims made in chapter two regarding classes of negators being associated with specific positions in the clausal spine. Thus, assuming that the order or verb $>$ root possibility modal is derived by predicate-raising in a manner similar to Simpson (2001) and that *tə1* occupies an invariant location in the clausal spine cannot be maintained. I leave open the

possibility that *tə1* occupies a static position in the clause and that head-final word orders are derived in accordance with the LCA, although at the moment I am unsure if this is feasible.

I argue that *tə1* is born in a specific phrase in the clausal spine, termed LoNeg2P to reflect the fact that it is structurally lower than *bə5*, to be argued for in §3.4, and undergoes the lowering operation of Embick and Noyer (2001) (45). *tə1* lowers onto the structurally closest overt head.

(45) *tə1* Lowering

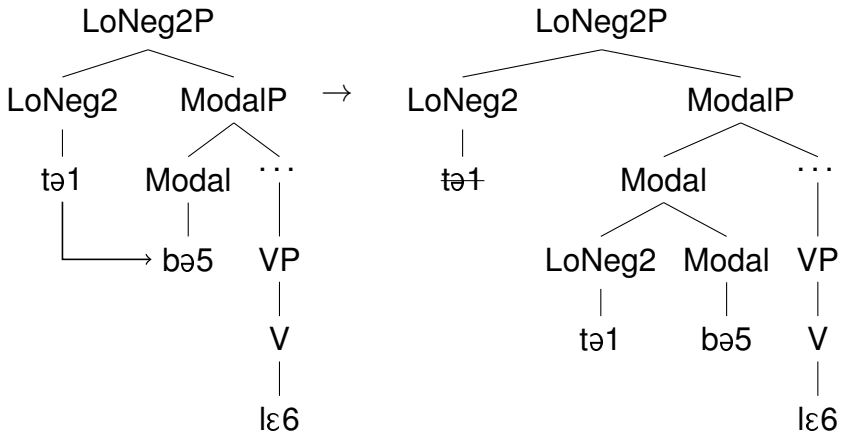


Note that *tə1* lowers such that it appears left-adjacent to the structurally lower head. This differs from the examples of lowering in Embick and Noyer (2001) in that all examples they give the head appears right-adjacent to the head it lowers to, resulting in a suffix. I assume that this does not pose an issue for my analysis. It is important that *tə1* lowers in the syntax and not at PF (a case of local dislocation in the terminology of Embick and Noyer 2001) as the lowering of *tə1* is sensitive to structural height and not linear order, as evidenced by the fact that *tə1* can lower onto head-initial and head-final elements.

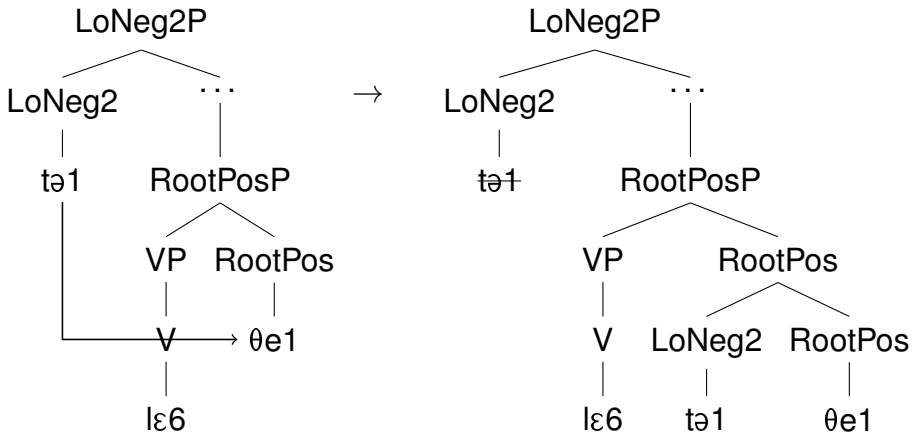
The lowering operation is superior in the following ways. First, it complies with the fact that contradictory negators occupy distinct positions in the clausal spine, as argued for in chapter two. Second, it derives the left-adjacency of *tə1* to the highest verbal element, whether or not the verbal element is head-initial or head-final. I

assume that LoNeg2P is projected immediately above ModalP (46). *tə1*, heading LoNeg2^0, lowers onto the closest overt head (46)-(48). Intermediate projections between LoNeg2 and the structurally closest overt head are omitted in (46)-(48). A modified version of (24-c) and (43-d) are repeated in (46) and (47) respectively.

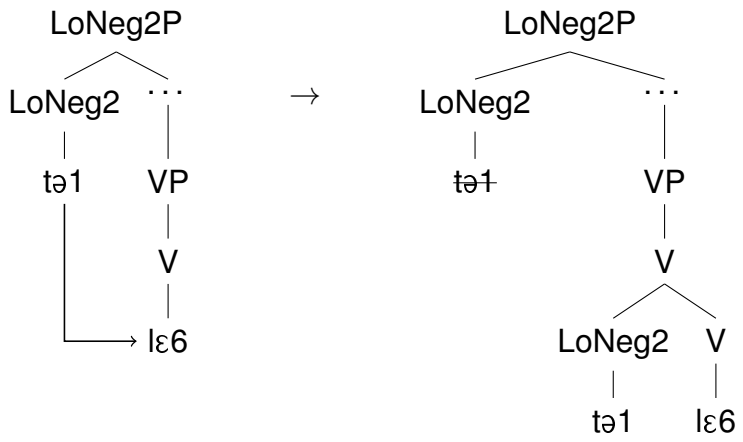
(46) nə1 **tə1** bə5 lɛ6 bə5 = 'You must not go'



(47) jə1 lɛ6 **tə1** θe1 bə5 = 'I cannot go.'



(48) jə1 **tə1** lɛ6 bə5 = 'I don't go.'/'I'm not going.'



The lowering operation captures the fact that *tə1* appears left-adjacent to the highest overt verbal head in the clausal spine as it will always lower onto the structurally closest overt head. Given that LoNeg2P is projected above ModalP, it follows that *tə1* will lower onto a pre-verbal modal if one is realized. If not, then *tə1* will lower onto a root possibility modal if one is realized. If neither a pre- or post-verbal modal are realized, then *tə1* will lower onto the highest verbal element in the *v*P domain.

It is possible that LoNeg2P is generated above the projection housing the highest verbal element and that projections such as ModalP, RootPosP, and others are only projected if they house clausal material (similar to Grimshaw 1997). I leave this as an open possibility.

Another argument in favor of the lowering analysis deals with negation in compound verbs, verbs that involve two monomorphemic constituents (see Gilmore 1898, Jones 1961, although they do not comment on negation with compound verbs). *nə2 pɨ2* 'understand' is an example of a compound verb[29]. With compound verbs, *tə1* can appear before the first (49-a) or second (49-b) constituent in the

[29]Ballard (1900, p. 167) states that *nə2 pɨ2* is made of two component parts, a noun *nə2* meaning 'ear' and a verb *pɨ2* meaning 'to comprehend.'

compound, and there is no difference in meaning[30,31].

(49) a. jə1 **tə1** nə2 pɨ2 bə5
I NEG understand NEG
'I don't understand'

b. jə1 nə2 **tə1** pɨ2 bə5
I under... NEG ...stand NEG
'I don't understand'

That *tə1* is not an infix in (49) is demonstrated in (50), where *tə1* cannot appear between the two syllables in the monomorphemic constituent *θe5 ŋa1* 'to know,' indicating the placement of *tə1* in (49-b) is due to the fact that *nə2 pɨ2* is a compound verb and not that it is bisyllabic.

(50) a. jə1 **tə1** θe5 ŋa1 bə5
I NEG know NEG
'I don't know'

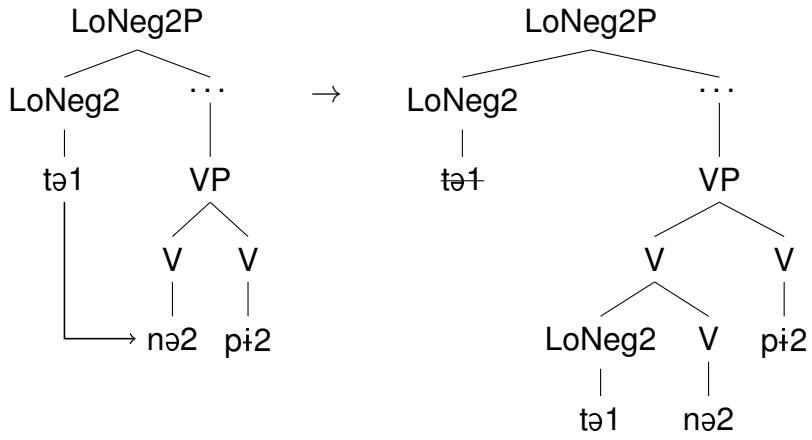
b. *jə1 θe5 **tə1** ŋa1 bə5
I kn... NEG ...ow NEG
Intended: 'I don't know'

I argue that the two constituents in the compound verb, *nə2* and *pɨ2*, are equidistant from LoNeg2^0, headed by *tə1*, and that *tə1* can lower onto either *nə2* (51) or *pɨ2* (52).

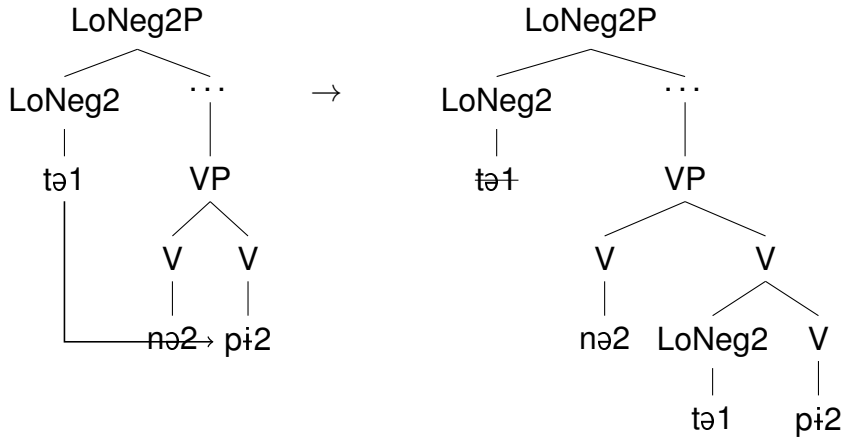
(51) jə1 **tə1** nə2 pɨ2 bə5 = 'I don't understand.'

[30]This fact was pointed out, and the data in (50), in Tilleson (2013). That *tə1* can appear before either *nə2* or *pɨ2* in (49) is also discussed in Ballard (1900), this work not being known to me at the time of writing Tilleson (2013).

[31]The convention of separating the syllables *under* from *stand* in (49-b) is not meant to indicate that these two syllables are separate morphemes, but to show the effects of a discontinuous word.



(52) jə1 nə2 **tə1** pɨ2 bə5 = 'I don't understand.'



The data on negation in compound verbs strengthens the analysis that *tə1* lowers onto the structurally closest and not the linearly closest constituent as the latter analysis would not predict that *tə1* can appear in the middle of a compound verb construction. Under this analysis, it is not clear where an object in a compound verb construction is base-generated, given that it has been analyzed as being a complement to the verb. It could be the case that the object is base-generated in a specifier position of a projection outside of the verb phrase (similar to Adger 2013). I set a proper analysis of compound verbs and the base-merge position of the object in Sgaw Karen aside for future research.

One potential issue with the analysis of *tə1* lowering onto an adjacent head is that *tə1*, in certain circumstances, appears before an adverb (53).

(53) jə1 **tə1** ɲə1 nɤ2 xe2 bə5
I NEG usually run NEG
'I don't usually run.'

It is not clear what to make of instances like (53). It is possible that the lowering operation needs to be changed such that *tə1* lowers onto the structurally adjacent constituent, be it an XP or X^0. In no instances is it the case that *tə1* lowers onto an argument. It is also possible that adverbs have head status in Sgaw Karen (or head status cross-linguistically). I set aside *tə1* appearing before adverbs for future research.

It is possible for *tə1* to appear below the highest verbal element. When this occurs, *tə1* marks sub-sentential negation. This is most salient in situations where negation scopes underneath a root possibility modal (54). When *tə1* marks sub-sentential scope, *bə5* is prohibited from appearing, supporting the fact that *bə5* marks sentential negation and not just negation in general when appearing in tandem with *tə1*.

(54) a. jə1 **tə1** lɛ6 θe1 (*__bə5__)
I NEG go can NEG
'I am able to not go.'

b. nə1 t^{hw}i5 **tə1** ʔo5 θe1 (*__bə5__)
you dog NEG have can NEG
'You are allowed to not have a dog.'

tə1 is in many ways parallel to *not* in English in being able to scope above or below a root possibility modal, although the two constituents differ in terms of being contradictory and focus negators respectively. *tə1* marking sub-sentential negation appears to be most felicitous when scoping underneath a root possibility modal, perhaps to make the difference in scope between negation and the modal more salient, with sentential negation indicating that negation scopes over the modal (43-d).

It is possible for two instances of *tə1*, one marking sentential and the other sub-sentential scope respectively, to appear in tandem. The only instance of this occurring in my data is when double negation occurs with a root possibility modal (55) outputting to a positive sentence with the semantics of the necessity modal (the logical dual of a possibility modal, recall discussion in chapter two).

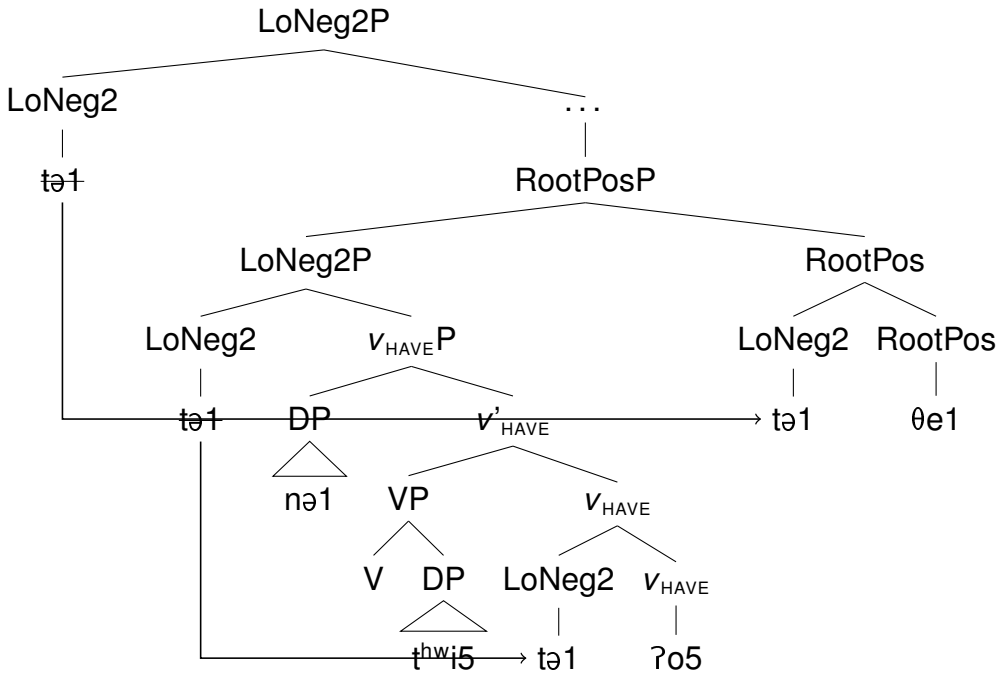
(55) a. jə1 **tə1** lɛ6 **tə1** θe1 (**bə5**)
I NEG go NEG can NEG
'I can't not go.' = 'I must go.'

b. nə1 t^{hw}i5 **tə1** ʔo5 **tə1** θe1 (**bə5**)
you dog NEG have NEG can NEG
'You can't not have a dog.' = 'You must have a dog.'

The examples in (55) are similar to the English examples given in chapter two.

The question arises as to where *tə1*, when marking sub-sentential scope, is base-generated. I assume that a second LoNeg2P is available below RootPosP, and that the second LoNeg2P undergoes lowering (56). (56) diagrams (55-b), leaving out projections in the TP domain and above.

(56)



The multiplicity of projections hosting *tə1* may call into question wanting to treat *tə1* as a head rather than as an adverb with perhaps a freer distribution. I maintain that *tə1* does not behave like an adverb for reasons discussed earlier, and analyzing *tə1* as an adverb would be problematic for my analysis of negative adverbs functioning as focus negators.

I discuss double negation in §3.4.3 as it illustrates how far *bə5* can probe down the tree.

3.4.2 The Syntax of *bə5*

bə5, unlike *tə1*, appears in a static position within the clause. Focusing first on negated SVO constructions without modals (57), *bə5* follows verbs (57-a), objects (57-b), adjuncts (57-c), and embedded clauses (57-d). *bə5* is optional in all instances that I am aware of. (2-b) is repeated in (57-a).

(57) a. jə1 tə1 nə2 pɨ2 (**bə5**)
I NEG understand NEG
'I don't understand.'

b. jə1 tə1 ʔɔ5 me6 (**bə5**)
I NEG eat rice NEG
'I don't eat rice.'

c. nə1 tə1 lo5 lɛ6 lɤ1 mu4 θə4 p^{hw}i1 (**bə5**)
you NEG need go to party NEG
'You don't have to go to the party.'

d. jə1 tə1 θe5 ɲa1 lɤ1 kə1 mə6 ʔo6 ne5 (**bə5**)
I NEG know COMP FUT do it COMP NEG
''I don't know that he will do it.' (embedded subject is pro-dropped)

bə5 follows SOV constructions (58-a) and post-verbal modals (58-b). (43-c) and (43-d) are repeated in (58-a) and (58-b) respectively.

(58) a. jə1 se1 tə1 ʔo5 **bə5**
I money NEG have NEG
'I don't have money.'

b. jə1 lɛ6 tə1 θe1 **bə5**
I go NEG can NEG
'I cannot go.'

bə5 appears, along with *tə1*, in embedded clauses (59). That *bə5* appears in embedded clauses is important for contrasting Sgaw Karen with Ojibwe in chapter six.

(59) a. p^{w}ə6 lɤ1 ʔə1 **tə1** t^{h}ɔ5 **bə5** ʔo5 p^{h}ɛ1 ne5
person COMP 3SG NEG tall NEG is there
'The person who isn't tall is there.'

b. p^{w}ə6 lɤ1 ʔə1 **tə1** θə4 p^{w}i1 **bə5** ʔɔ5 p^{h}i1 sə5
person COMP 3SG NEG happy NEG eat pizza
'The person who isn't happy (the unhappy person) is eating pizza.'

It can be stated that *bə5* occupies a static position near to, but not at the end of the clause. *bə5* linearly precedes constituents marking the force of the clause, including the declarative particle *lɔ6* (60-a), the polar question particle *hə1* (60-b), and the wh-question particle *lɛ5* (60-c).

(60) a. jə1 lɛ6 tə1 θe1 **bə5** lɔ6
I go NEG can NEG DECL
'I cannot go.'

b. nə1 tə1 lɛ6 bə5 $k^hɔ$1 p^hi5 klə4 **bə5** hə1
you NEG go coffee shop NEG Q
'Didn't you go to the coffee shop?'

c. bə5 mə1 nɤ6 xo1 nə1 tə1 hɛ1 dɔ4 tɛ1 tə2 jə6 **bə5** lɛ5
why you NEG come and talk me NEG WH-Q
'Why don't you come here and talk to me?'

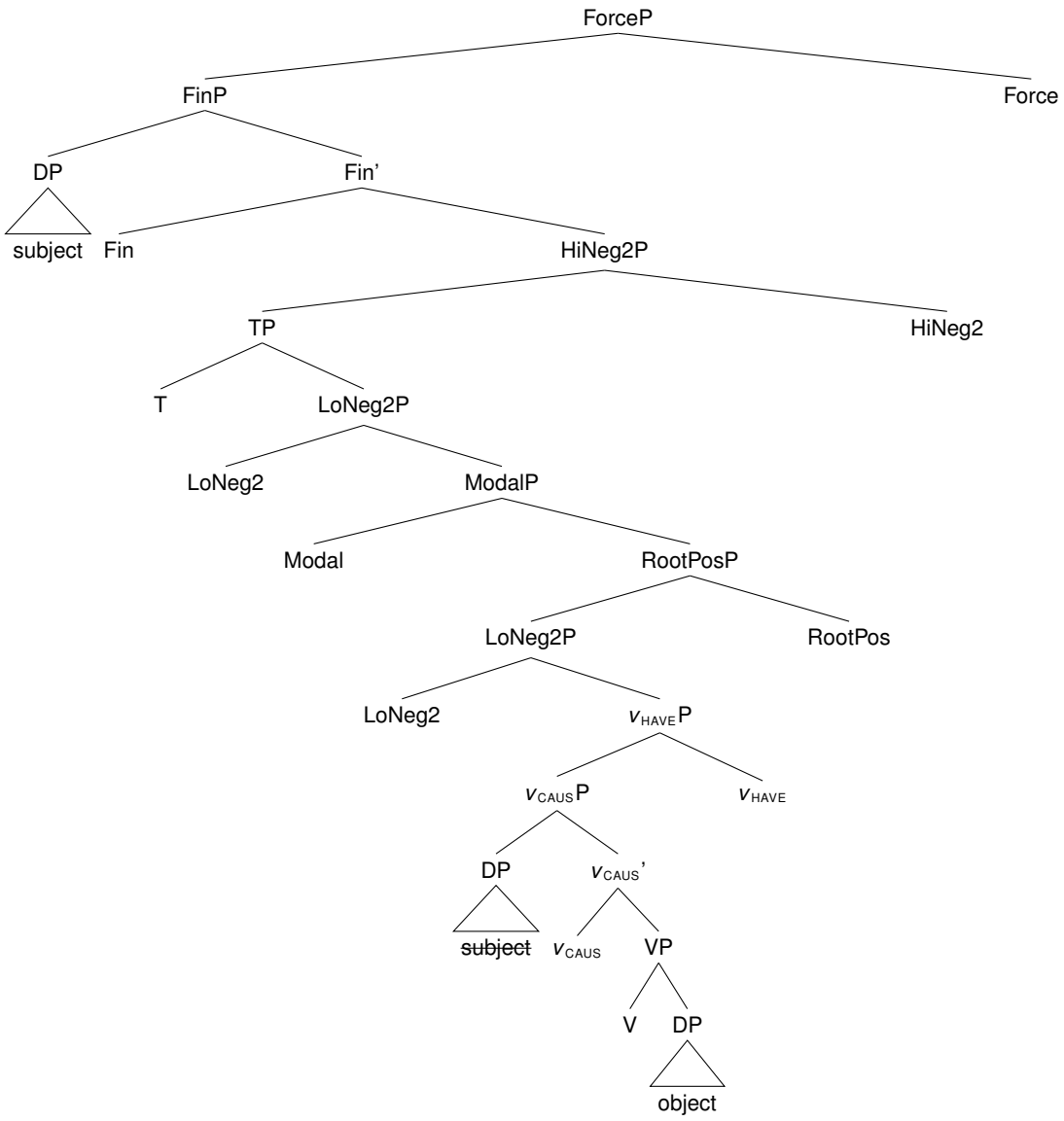
The question arises as to where *bə5* is base-generated. Given *bə5*'s static position, and the fact that it always marks sentential (contradictory) negation, and performs no other function as a negator, I argue that *bə5* is a head occupying a specific projection in the clausal spine. I have shown in chapter two that contradictory negation is of status X^0. In analyzing *bə5* as an uninterpretable contradictory negator, it follows based on this framework that *bə5* is a head, although of course this does not prove beyond a doubt that *bə5* is a head. *bə5* cannot plausibly be argued to be a Spec element, given that it would have to spell out Spec-finally in the clause to obtain the proper word order. Following Kayne (1994), I assume that Spec-final elements are impossible. It is also implausible that *bə5* is spelled out Spec-initially with subsequent clausal pied-piping of all lexical material below *bə5* given the lack of evidence for such a configuration. Furthermore, I argue in §3.4.3 that negator *bə5* is related to modal *bə5*. Given that modal *bə5* is a head, as per standard assumptions about modals, it follows that negator *bə5* is also a head if it is related to modal *bə5*.

Given that post-verbal modals linearly precede *bə5* (43-d), it follows that *bə5* must occupy a projection higher than RootPosP, which was shown to be higher than *v*P and projections below in §3.2. If *bə5* were structurally lower than RootPosP, then it would follow that *bə5* must linearly precede post-verbal modals, given the head-finality of $RootPos^0$. It is difficult, given the head-final nature of *bə5*, the

head-initial nature of ModalP, and the fact that both T^0 and Fin^0 are always null, to establish where *bə5* is specifically base-generated in the clausal spine. It is implausible that *bə5* either immediately dominates ModalP or RootPosP, given that this would disrupt the proposed structural adjacency between *tə1* heading $LoNeg2^0$ and either $Modal^0$ or $RootPos^0$ when *tə1* appears left-adjacent to a pre- or post-verbal modal respectively. This points to the fact that *bə5* must be higher than LoNeg2P housing *tə1* and is thus associated with the TP domain of the clause.

I argue that *bə5* occupies a Neg2P marking sentential negation. I term this phrase HiNeg2P to disambiguate it from LoNeg2P headed by *tə1*. That *bə5* occupies HiNeg2P is evidenced by the fact that *bə5* (specifically negator *bə5*) only appears with sentential negation and appears in the TP domain of the clause. Given that sentential negation is associated with the TP domain of the clause, as argued for in chapter two, it reasonably follows that *bə5* inhabits HiNeg2P. I assume that HiNeg2P immediately dominates TP, although nothing in Sgaw Karen gives this away, given that T^0 is always null (see Appendix A). I make this assumption based on the fact that HiNeg2P dominates TP clearly in Italian (see chapter two), and thus the order of HiNeg2P $>$ TP in Sgaw Karen is consistent with the order of the two projections in other languages. (61) updates the cartography of Sgaw Karen in (32) with the three phrases of negation posited in this section, noting that these phrases are only projected when negation is expressed.

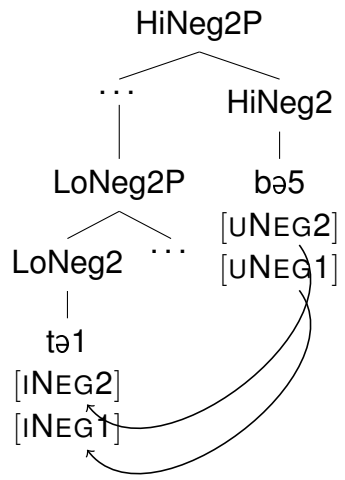
(61) Final Cartography of Sgaw Karen



3.4.3 Bipartite Negation is Syntactic Agreement

I argue that *bə5* and *tə1* are related via syntactic agreement. *bə5* bears both [uNEG1] and [uNEG2] and gets both features valued by *tə1*. (4) is repeated in (62).

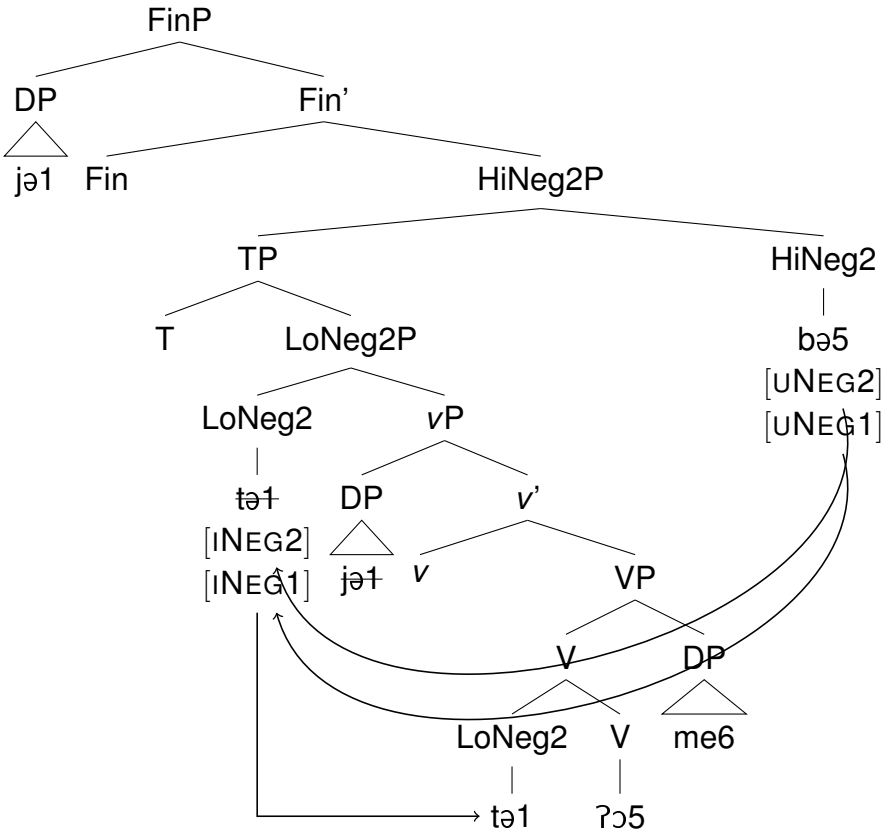
(62) Syntactic Agreement Between *bə5* and *tə1*



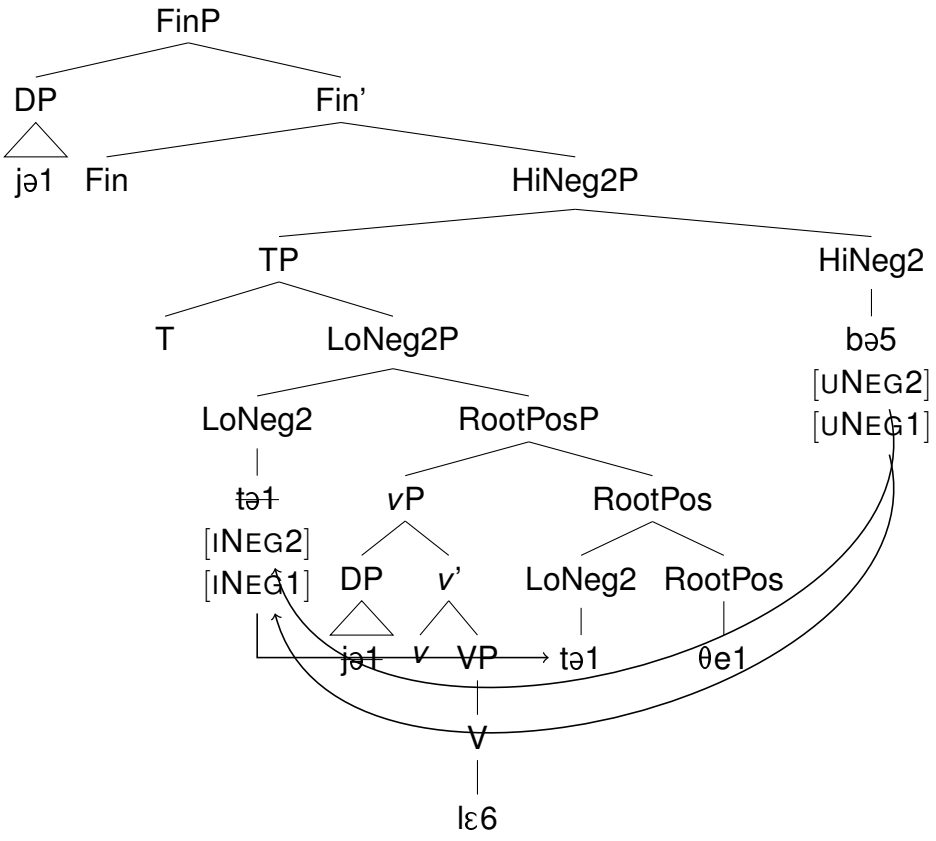
The arguments for positing that *bə5* and *tə1* are in an agreement relationship are as follows. *bə5* (specifically negator *bə5*) only appears in sentential negation contexts and appears in HiNeg2^0 marking sentential negation. It is also parasitic on the presence of *tə1* to mark sentential negation. This parasitism between *bə5* and *tə1* can be modeled if *bə5* is uninterpretable and *tə1* interpretable for negation respectively, and that *bə5* needs a constituent to value its uninterpretable features. This also captures the fact that *tə1* is not parasitic on *bə5*, as evidenced by the fact that it marks both sentential and sub-sentential negation without *bə5* or any similar negative constituent. Thus, *tə1* does not need to appear with a second constituent to value any uninterpretable features. Furthermore, given that *bə5* is structurally higher than *tə1*, it reasonably follows that *bə5* is in a position to c-command *tə1* and have its features valued via AGREE. *bə5* is thus like the overt spell out of the null Neg2^0 marking sentential negation in English. That null Neg2^0 can spell out in certain languages gives credence to its existence in languages like English where its realization is not obvious.

(63) and (64) illustrate the agreement relation between *bə5* and *tə1*. (57-b) and (43-d) are repeated in (63) and (64) respectively.

(63) jə1 **tə1** ʔɔ5 me6 **bə5**
I NEG eat rice NEG
'I don't eat rice.'



(64) jə1 lɛ6 **tə1** θe1 **bə5**
I go NEG can NEG
'I cannot go.'



Exploiting the AGREE operation also explains why *bə5* cannot be realized when *tə1* marks sub-sentential negation. (54-a) is repeated in (65).

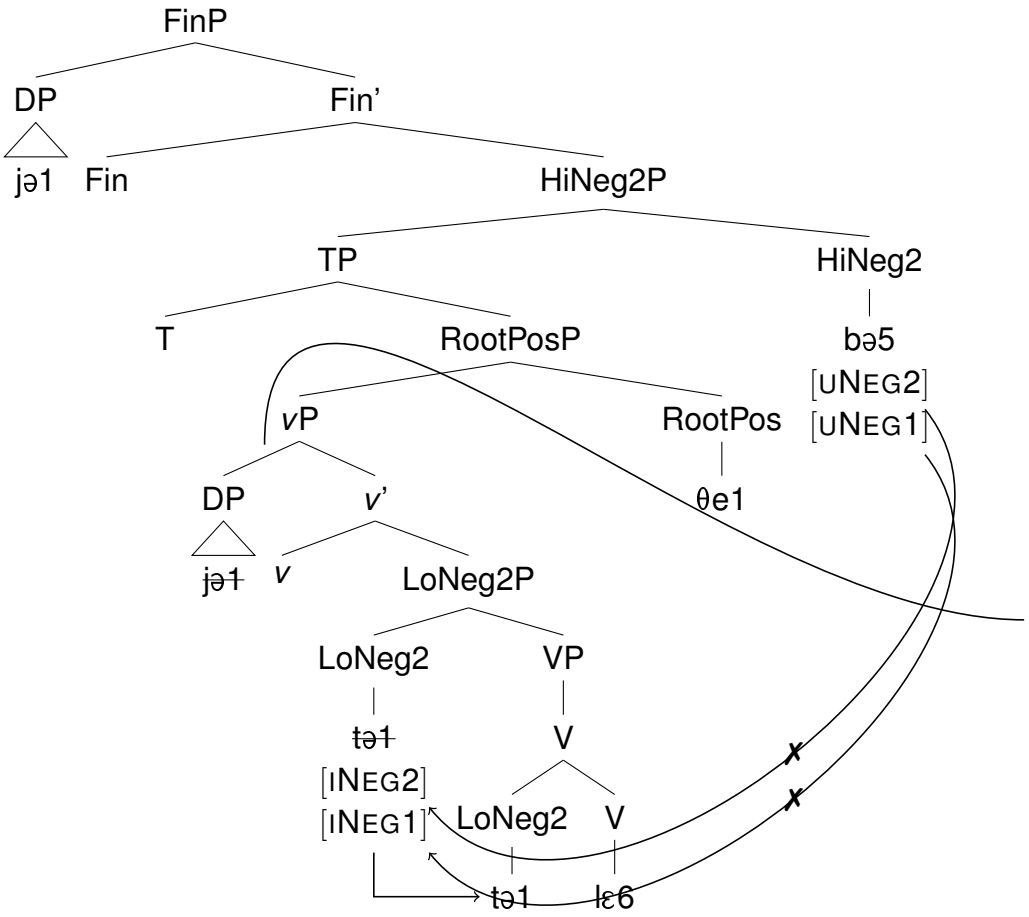
(65) jə1 **tə1** lɛ6 θe1 (***bə5**)
I NEG go can NEG
'I am able to not go.'

I assume that *bə5* is prohibited in (65) because *bə5* cannot probe past RootPosP when RootPosP is projected. In chapter two I argued that v_{focus}P blocks null Neg2^0 marking sentential negation from reaching past $v_{\text{focus}}{}^0$ in English. I assume that something parallel is going on in Sgaw Karen, although I do not assume that a focus projection is blocking HiNeg2^0 from reaching down to get valued by *tə1* in (65) as there is no evidence to posit one. One possibility that I would like to entertain is that RootPosP marks a phase boundary in Sgaw Karen, similar to arguments

in Erlewine (2017) that head-final possibility modals in Southeast Asian languages mark the edge of the *v*P-phase[32]. Regarding *tə1* appearing left-adjacent to a verb and imparting sentential negation, I assume that a phase boundary is not present. Whether or not this presents an issue for the syntax of Sgaw Karen is something I set aside for future research. I assume, following the Phase Impenetrability Condition (Chomsky, 2001), that *bə5* cannot probe past the phase edge of RootPos[0] (66). (65) is repeated in (66).

(66) jə1 **tə1** lɛ6 θe1 (***bə5**)
I NEG go can NEG
'I am able to not go.'

[32]Erlewine's arguments are based off of the fact that post-verbal modals in Southeast Asian languages violate the Final-over-Final Constraint (Holmberg 2000, Biberauer et al. 2008, among others). He assumes that the Final-over-Final Constraint only holds within the complement domain of a phase, such that the edge of the phase boundary can violate the Final-over-Final Constraint. See Erlewine (2017) for more information.

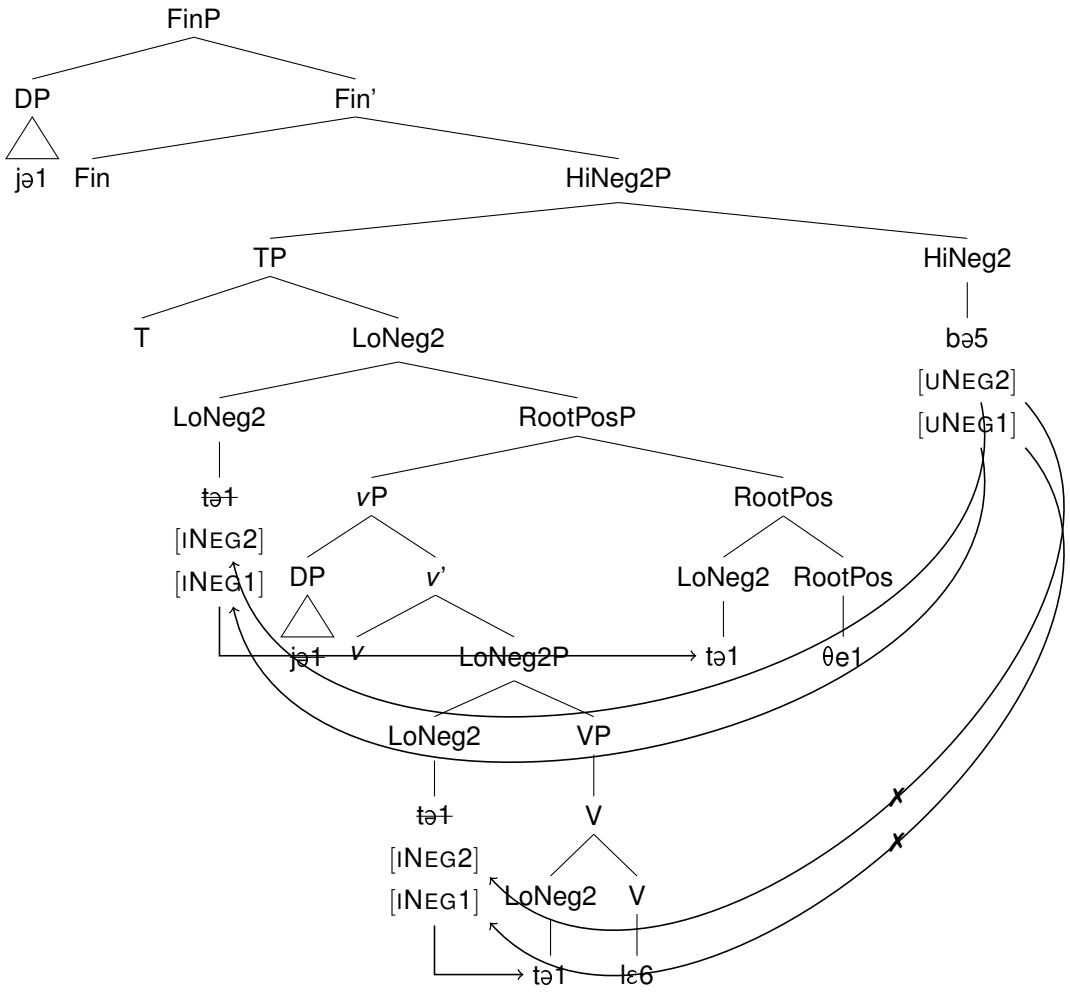


The derivation in (66) crashes because the uninterpretable features of *bə5* are not valued. Without HiNeg2^0, (66) is fine, as no uninterpretable features would be realized. Under this arrangement, *tə1* would be interpreted as marking subsentential negation as HiNeg2^0 is responsible for marking sentential negation.

Regarding instances of double negation in Sgaw Karen, I argue that the structurally highest *tə1* is in agreement with *bə5*, outputting to one instance of logical negation, and that the structurally lower *tə1* is not in this agreement relation given that *bə5* cannot probe past the phase boundary to reach it. (55-a) is repeated in (67)[33].

[33]The phase boundary convention adopted in (66) is omitted from (67) to enhance readability.

(67) jə1 **tə1** lɛ6 **tə1** θe1 (**bə5**)
I NEG go NEG can NEG
'I can't not go.' = 'I must go.'



This framework explains why three negative constituents output to two instances of logical negation, given that *bə5* and the structurally higher *tə1* are in an agreement relationship, and that the structurally lower *tə1* marks negation on its own as it cannot be in an agreement relationship with either *bə5* or the structurally higher *tə1*. Sgaw Karen is similar to English in exploiting two locations where a structurally lower negator can merge, the higher of the two negators signaling sentential negation, and the lower of the two negators marking sub-sentential negation, Sgaw

Karen and English differing in that the negators in question are of different XP/X^0 status, X^0 in Sgaw Karen and XP in English.

Regarding the optionality of *bə5*, I assume that *bə5* (specifically negator *bə5*) can be dropped because it does not have semantic content. I assume that *bə5* occurs in the syntax and bears the uninterpretable features necessary to impart sentential negation, but that it can be optionally spelled out as it does not affect the semantics of the clause. Thus, *bə5* is always present in the syntax with sentential negation as this constituent bears the features responsible for imparting sentential negation, but it might not be present at spell out.

Sgaw Karen bears a resemblance to the languages exhibiting bipartite negation in Kahrel (1996). Kahrel argues for the languages he discusses that one of the two negators imparts negation proper, while the other is a non-factuality marker. In Navajo, the constituent **da** appears in bipartite negation constructions (68-a) and also functions as an epistemic modal (68-b), modals imparting non-factuality (see Giannakidou and Yoon 2016).

(68) a. Jáan **doo** Bostongóó adooɬbas-**da**.
John NEG Boston-to 1.FUT.drive.NEG
'John won't be driving to Boston.'

Schauber (1979, p. 195) cited in Kahrel (1996, p. 86)

b. Silao deesh-áaɬ-go-**da** 'át'é.
army FUT-join-PTCL-might PTCL
'I might join the army.'

Young and Morgan (1980) cited in Kahrel (1996, p. 86)

Kahrel's argument is that in Navajo and in similar languages, the constituent equivalent to *da* in (68) appears in non-factual environments, negation and modal constructions both being non-factual environments. He argues that the single instance of logical negation is due to the sentential negator proper (**doo** in Navajo), and the non-factuality marker does not contribute to the logical interpretation of negation.

One could make the argument that Sgaw Karen is similar to Navajo in that *bə5*, which is also an epistemic (and root) modal (69), is a marker of non-factuality, and *tə1* is the sole sentential negator. (24-a), (24-c), and (13-a) are repeated in (69-a), (69-b), and (69-c) respectively.

(69) Modal *bə5*

a. tə2 **bə5** hɛ1su6
EXPL.SUBJECT must rain
'It might/must be raining.' EPISTEMIC NECESSITY/POSSIBILITY

b. nə1 tə1 **bə5** lɛ6 lɤ1 mu4 θə4 p^{hw}i1 bə5
you NEG must go to party NEG
'You must not (are not allowed to) go to the party.' ROOT NECESSITY

c. nə1 tɛ1 tə1 rɨ4 klo3 **bə5** hə1
you speak Chinese language can Q
'Can you speak Chinese?' ROOT POSSIBILITY

I speculate that *bə5* and the parallel constituents in the languages Kahrel discusses are chosen as a negator because the TP domain of the clause, at least in terms of the area immediately above TP which realizes negation, modals (at least at LF), and mood markers, is associated with non-factuality (see Cinque 1999 for a detailed look at the TP domain of the clause and its association with non-factuality). The idea is that a constituent is chosen to represent the scope of negation based on the semantics of the area of the clause in which it appears, and thus I argue Kahrel (1996) was on the right track in terms of analyzing one of the constituents in the languages exhibiting bipartite negation he discusses as being a marker of non-factuality. A similar, hypothetical analysis where *bə5* heads something like a non-factual phrase instead of HiNeg2P is implausible as *bə5* does not appear in all non-factual environments (protasis of conditionals, embedded clauses licensed by adversative verbs, etc.) outside of being used as a modal. I am unaware of any language that has a head marking non-factuality appearing in all possible non-

factual environments[34]. Furthermore, Kahrel's analysis cannot be expanded to French and Ojibwe, as I argue in chapters four and six that the two negators taking part in bipartite negation in these two languages are negators proper and do not impart any meaning beyond negation. The connection between negator and modal *bə5* is tentative at this point. I leave it to future research as to whether or not this is a tenable analysis.

Previous analyses of bipartite negation in the literature are not applicable to Sgaw Karen. Realizing syntactic agreement via upward probing in the manner of Zeijlstra (2004) for his analysis of bipartite negation in French does not suffice to explain the data in Sgaw Karen, given that *tə1* and *bə5* would have to bear the uninterpretable and interpretable probes respectively to get upward probing to work, which would not reflect the semantic import of either constituent. I assume that it is possible to disentangle formal syntactic features from semantic interpretation, as in Zeijlstra (2009) and his updated analysis of French negation, although I believe that this is an undesirable move as this could lead to overgeneration. I am unaware of a language exhibiting bipartite negation where the structurally lower and higher negators are uninterpretable and interpretable for negation respectively. Furthermore, similar to discussion in chapter four for French and expounded upon there in greater detail, I argue against an approach where *tə1* and *bə5* are in a Spec-head agreement relation similar to to the approaches of Pollock (1989), Ouhalla (1990), Haegeman (1995), and Rowlett (1998) for bipartite negation. It has been argued that both *tə1* and *bə5* are heads, so Spec-head agreement is ruled out for Sgaw Karen bipartite negation. Furthermore, Spec-head agreement in general has been ruled out on general linguistic principles (see Chomsky 2000) and these approaches to bipartite negation have fallen out of favor in recent years.

[34]Chatzopoulou (2012) posits a nonveridical phrase (NonVerP) (nonveridicality being equivalent to non-factuality) for historical Greek, although her NonVerP houses a negator that appears in nonveridical environments. The version of a nonveridical phrase that I have in mind is not one that marks negation, but simply marks the clause as nonveridical.

3.4.4 DP-internal Negation

Neither *tə1* nor *bə5* occur with DP-internal negation. I point this information out to show that *tə1* and *bə5* are both associated with the clausal spine[35]. With n-words, the constituent *nɔ1* denotes negation (70).

(70) a. **nɔ1** tə1 mi6
NEG one thing
'nothing'

b. pʷə6 **nɔ1** tə1 ɣə6
person NEG one CLASS
'nobody'

That *tə1* in last denotes the numeral one and not negation, the two constituents being homophonous[36], is evidenced by two facts. First, (70-b) forms a minimal pair with the positive phrase 'a person' (71), the only difference being the presence of *nɔ1*.

(71) pʷə6 tə1 ɣə6
person one CLASS
'a person'

Furthermore, it is possible in fast speech to drop *tə1* altogether in n-words such as (70-b)[37], shown in (72), and the n-word status still remains, signaling that it cannot be *tə1* that is imparting negation.

(72) pʷə6 **nɔ1** ɣə6
person NEG CLASS
'nobody'

[35]Note also that *tə1* and *bə5* also do not occur in the extended projections of adjective phrases, given that it was argued that adjectives are verbs.

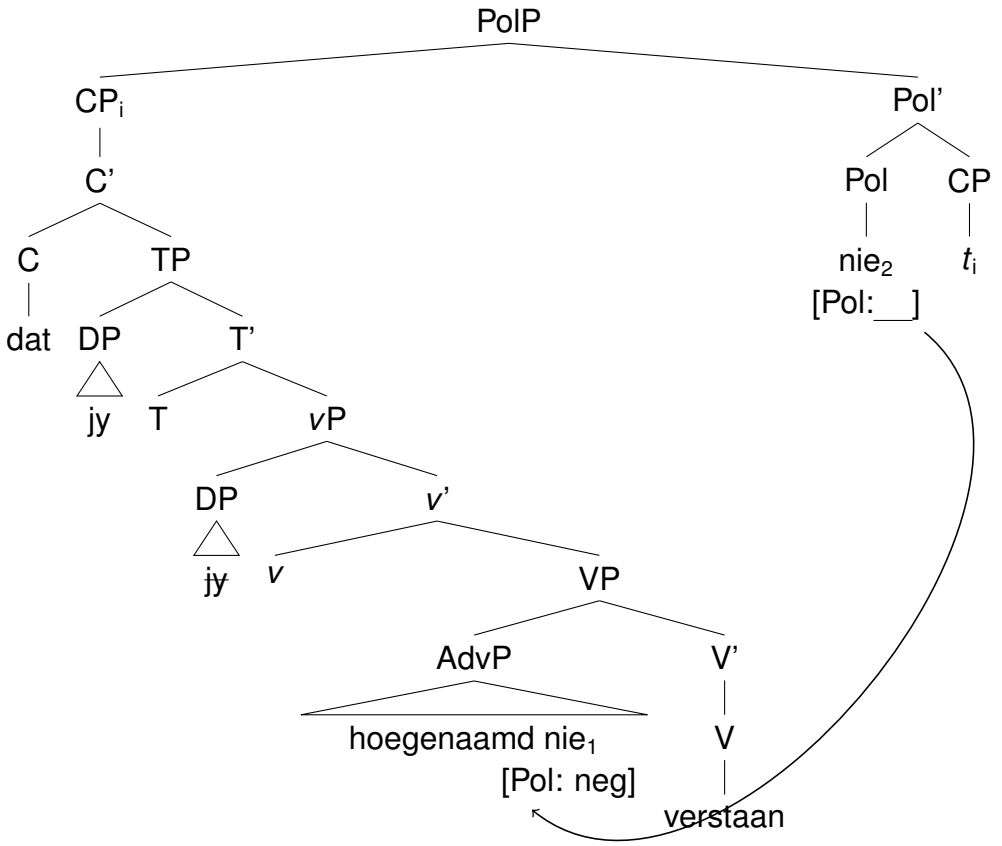
[36]That these two constituents are homophonous may be due to the fact that negator *tə1* derives from a historically minimal element, specifically the numeral portion of the expression 'not even one.' This is argued to be the case for *to*, the sentential negator in Eastern Kayah Li (Solnit, 1997), a language related to Sgaw Karen, this constituent being homophonous with *to* 'one,' similar to Sgaw Karen. Negators often derive from minimal expressions historically (see Hansen and Visconti 2012).

[37]This fact is also discussed in Ballard (1900).

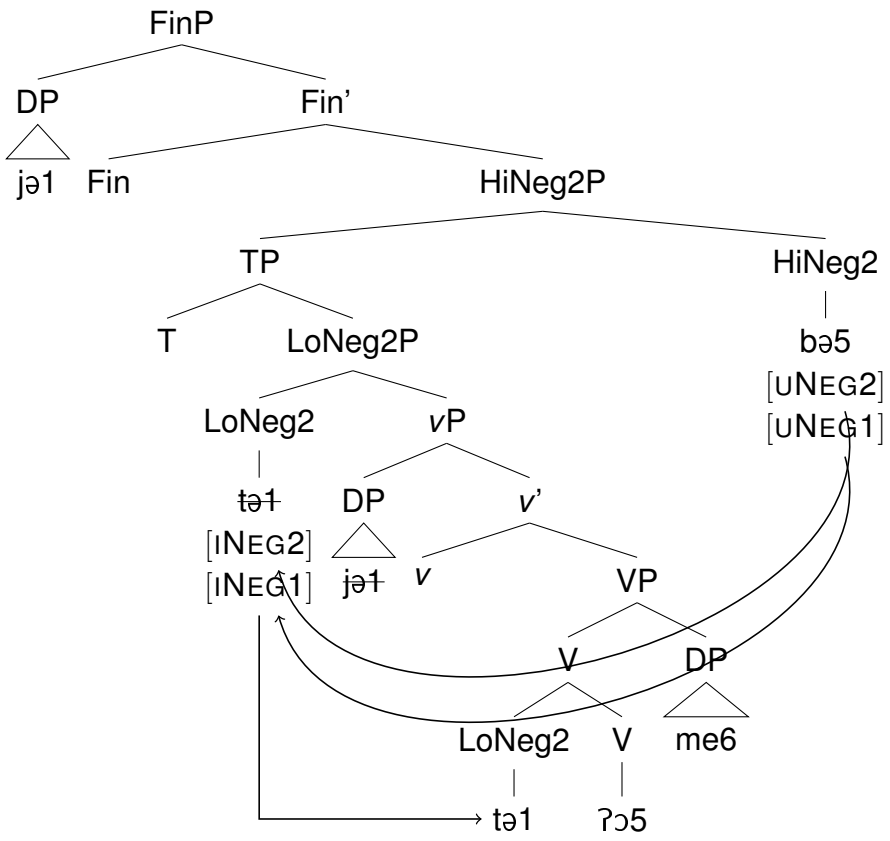
3.5 Sgaw Karen and Afrikaans

I highlight some parallels between bipartite negation in Sgaw Karen and Afrikaans as the two languages show a number of interesting similarities, with some noted differences. I use the analysis of Afrikaans in Biberauer (2007) as a means of comparison, noting that I am not necessarily endorsing her analysis of bipartite negation in Afrikaans, and that I discuss her work as it contains important facts that parallel some of the facts in Sgaw Karen. For other analyses of bipartite negation in Afrikaans, see Oosthuizen (1998), Bell (2004), and Molnarfi (2004), among others. In both languages, the structurally higher negator linearly follows the structurally lower negator, and is uninterpretable (unvalued in Biberauer's framework) for negation. (3) and (63) are repeated in (73) and (74) respectively.

(73) Ek kan sien [dat jy hoegenaamd **nie$_1$** verstaan **nie$_2$**]
I can see that you totally NEG understand NEG
'I can see that you don't understand at all.' Biberauer (2007, p. 14)



(74) jə1 **tə1** ʔɔ5 me6 **bə5**
I NEG eat rice NEG
'I don't eat rice.'



The structurally higher negator in both languages cannot impart negation on its own (75). In this framework, this is attributed to the uninterpretability of the structurally higher negator, and in Biberauer's this is attributed to the fact that it is unvalued. (38) is repeated in (75-b).

(75) Structurally Higher Negator Cannot Mark Negation on its Own

a. *Hy kom in **nie$_2$**. [Afrikaans]
he come in NEG
Intended: 'He doesn't come in/He isn't coming in.'

adapted from Biberauer (2007, p. 8)

b. *jə1 nə2 pɨ2 **bə5** [Sgaw Karen]
I understand NEG
Intended: 'I don't understand.'

The structurally higher constituent is also optional in the two languages (76).

(76) Structurally Higher Negator is Optional

a. Hy kom **nie$_1$** in (**nie$_2$**). [Afrikaans]
he come NEG in NEG
'He doesn't come in/He isn't coming in.'

adapted from Biberauer (2007, p. 9)

b. jə1 **tə1** nə2 pɨ2 (**bə5**) [Sgaw Karen]
I NEG understand NEG
'I don't understand.'

Biberauer is the first to point out, to the best of my knowledge, that linear order should not be conflated with structural height when discussing bipartite negation. Many analyses of bipartite negation cross-linguistically use the terms pre- and post-verbal negator. In comparing Sgaw Karen and Afrikaans with French, to be discussed in the next chapter, the pre-verbal negator in the former two languages is structurally lower and in French is structurally higher than the post-verbal negator. Any analysis of bipartite negation needs to take facts like these into account when making cross-linguistic comparisons. Biberauer also argued that the structurally higher negator marks the scope of sentential negation, similar to this analysis. The similarities between Sgaw Karen and Afrikaans point to a type of bipartite negation such that the structurally higher negator is uninterpretable for negation and forms an agreement chain with a structurally lower intepretable negator. As I show in forthcoming chapters, this same arrangement does not occur in French[38] or Ojibwe.

Afrikaans and Sgaw Karen are also similar in that the structurally higher negator, *nie$_2$* in Afrikaans and *bə5* in Sgaw Karen, is in a static position in the clause, and the structurally lower negator, *nie$_1$* in Afrikaans and *tə1* in Sgaw Karen, occurs in a variable position. This is most salient with double negation readings in the two languages, where the structurally lower negator is repeated but not the structurally

[38] I argue that there is syntactic agreement for French in chapter four, although not in the same fashion as Sgaw Karen.

higher one (77)[39]. (55-a) is repeated in (77-b).

(77) a. Hy sing **NIE$_1$ NIE$_1$ nie$_2$**.
he sings NEG NEG NEG
'He doesn't not sing.' = 'He sings.'

adapted from Biberauer (2007, p. 39)

b. jə1 **tə1** lɛ6 **tə1** θe1 (**bə5**)
I NEG go NEG can NEG
'I can't not go.' = 'I must go.'

Afrikaans and Sgaw Karen are similar in that three negators can output to two instances of logical negation. More specifically, the three negations include one instance of the structurally higher negator, *nie$_2$* in Afrikaans and *bə5* in Sgaw Karen, and two instances of the structurally lower negator, *nie$_1$* in Afrikaans and *tə1* in Sgaw Karen.

There are at least two differences between Sgaw Karen and Afrikaans. First, the structurally lower negator taking part in bipartite negation is a head in Sgaw Karen and argued by Biberauer to be an adverb in Afrikaans. Second, in Afrikaans, the structurally higher negator *nie$_2$* is argued to derive historically from a discourse particle. This is not the case in Sgaw Karen, as far as I am aware. It is not clear what the origin of *bə5* is, although it is argued in Wah (2011), cited in Manson (2017), that negator *bə5* derives from the lexical constituent *bə5* meaning 'correct' for reasons not pertinent to the discussion here.

The parallels here between Sgaw Karen and Afrikaans show that the two languages exhibit a similar type of bipartite negation. Most of the difference in syntax comes down to the XP/X^0 status of the structurally lower negator in the agreement relation, XP in Afrikaans and X^0 in Sgaw Karen.

[39]The reasons for the stress on both instances of *nie$_1$* in (77-a) have to do with independent facts relating to prosody in Afrikaans and the occurrence of multiple instances of the form *nie*, regardless if it is the higher or lower negator. I mention also that Biberauer argues that there are actually three instances of *nie$_2$* in (77-a), two of them not undergoing spell out, these silent *nie$_2$*'s being associated with each overt instance of *nie$_1$*.

3.6 Conclusion

Sgaw Karen exhibits a type of bipartite negation where the two constituents, *bə5* and *tə1*, occur in a syntactic agreement relation. This has been established by the fact that *bə5* is uninterpretable for negation (cannot negate a sentence on its own), only appears in sentential negation environments (specifically negator and not modal *bə5*), and is structurally higher than *tə1*. *tə1* is interpretable for negation, appears in both sentential and sub-sentential negation environments, and is structurally lower. These facts point to an analysis where *bə5* is parasitic on *tə1*, and given the configuration between the two constituents, *bə5* is able to probe down to get its uninterpretable features valued by *tə1*.

A central goal of this thesis is to account for how two negators output to one instance of logical negation. The single instance of logical negation in Sgaw Karen arises from agreement between *bə5* and *tə1*. It is important to note that it is not specifically due to the fact that *bə5* and *tə1* are uninterpretable and interpretable for negation respectively that the two constituents output to one instance of negation, as it will be argued in the next chapter that in French, two constituents interpretable for negation can occur in an agreement relation and output to one instance of sentential negation. Furthermore, in chapters five and six, I show that two constituents interpretable for negation can output to one instance of negation if they are the result of NegP splitting, as is the case with negative polarity emphasis in English (chapter five) and bipartite negation in Ojibwe (chapter six).

Chapter 4

Bipartite Negation in French

4.1 Introduction

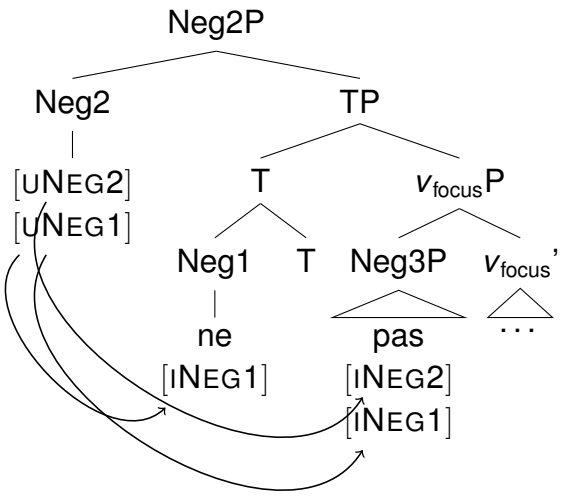
This chapter concerns the phenomenon of bipartite negation in French. Of the three languages analyzed in depth in this thesis, French is by far the most studied (see Pollock 1989, Ouhalla 1990, Rowlett 1998, Péters 1999, de Swart and Sag 2002, Schapansky 2002, 2010, Roberts 2007, Zeijlstra 2004, 2008, 2009, Biberauer and Roberts 2011, Rooryck 2017, among others). Given the multitude of frameworks, I cannot issue a rejoinder to each analysis given in the literature for reasons of space. I discuss some of these frameworks in §4.3, and I reserve discussion to key points that the aforementioned frameworks do not explain.

The data in this chapter, unlike for the chapters on Sgaw Karen and Ojibwe, are taken from existing sources. As the literature on French accounts for a fairly large percentage of the discussion on bipartite negation, I feel that there is little that I can add to the empirical facts surrounding bipartite negation in French. I wish to analyze French as I believe that the framework developed here, largely to explain bipartite negation in Sgaw Karen and Ojibwe, allows us to a take fresh look at some old problems.

In this chapter I focus on the register of French discussed in Schapansky (2002, 2010) where *ne* is actively maintained and has semantic import, specifically as a contrary negator (recall discussion in chapter two). I compare this register to other registers of French when need be, especially Quebecois French in §4.4.

I argue that bipartite negation in French is the result of syntactic agreement, similar to but distinct from the syntactic agreement in Sgaw Karen shown in chapter three. I argue that sentential (hi contradictory) negation is interpreted at a silent uninterpretable Neg2^0 which probes its c-command domain and gets its features valued by both *ne* and *pas* (1).

(1) Bipartite Negation in French is Syntactic Agreement



I show that this arrangement derives the optionality of *ne* with sentential negation while maintaining that *ne* has semantic import when appearing without *pas* (these facts discussed in Schapansky 2002, 2010), the import of *ne* to be covered in §4.2.

This chapter is organized as follows. §4.2 reviews the empirical facts about bipartite negation in French, discussing the syntax and semantics of *ne* and *pas*, the two negators taking part in bipartite negation, as well as n-words. I discuss

n-words to motivate the import of *pas*, as *pas* and n-words realized in tandem, in the dialect that I focus on here, output to double negation (mutual cancellation). I highlight the semantic import of *ne* as it is frequently glossed as not having semantic import (Rowlett 1998, Zeijlstra 2004, 2008, 2009, among others). §4.3 offers an analysis of bipartite negation in French in terms of syntactic agreement. In §4.4 I extend the analysis laid out in §4.3 to capture the import of n-words in French. §4.4 is somewhat of a detour from discussing bipartite negation as it is necessary to discuss n-words as the co-occurrence of an n-word and *pas* outputs to double negation. Given that I argue that two interpretably negative constituents can output to one instance of interpretable negation, as is the case with my analysis of *ne* and *pas* in §4.3, a question arises as to how I make sense of two interpretably negative constituents cancelling each other out. I also discuss n-words to motivate a constraint on AGREE introduced in chapter two, namely that v_{focus}P blocks AGREE from probing further. I show that this constraint plays a pivotal role in deriving instances of double negation. This section also discusses the connection between prosody and negation. I analyze Jespersen's Cycle in French in §4.5, arguing that this framework derives the semantic, syntactic, and morphophonological changes of *ne* stemming from the one fell swoop reduction of Neg2P to Neg1^0. The addition of a second negative element is due to the need to value Neg2^0, which is uninterpretable for both negative features in the second stage of Jespersen's Cycle. In §4.6 I compare bipartite negation in French with bipartite negation in Sgaw Karen. In §4.7 I show that the analysis motivated here makes a prediction that any number of negative elements, subject to grammatical constraints, can occur between Neg2^0 and a focus negator and output to one logical negation. I show that this appears to be the case for data in Italian dialects and West Flemish. §4.8 concludes the chapter.

4.2 Bipartite Negation: The Facts

In French, *ne* and *pas* in tandem output to one instance of sentential (contradictory) negation, noting that *ne* is optional.

(2) Marie (**ne**) mange **pas**.
Marie NEG eats NEG
'Marie doesn't eat.' Zeijlstra (2009, p.447)

(3) Je (**ne**) dis **pas**.
I NEG say NEG
'I do not say.' adapted from Hansen and Visconti (2012, p. 455)

Ne and *pas* together impart sentential negation in both matrix (2)-(3) and embedded (4) clauses. I point the latter fact out to compare French with Ojibwe in chapter six, where it is shown that Ojibwe shows restricted usage in terms of realizing bipartite negation in embedded clauses[1].

(4) Allons ailleurs si ce **n**'est **pas** possible de manger ici.
let's go elsewhere if it NEG'is NEG possible to eat here
'Let's go somewhere else if it is not possible to eat here.'

adapted from Schapansky (2010, p. 112)

As was discussed in chapter two, *ne* and *pas* output to canonical negation, so it cannot be stated that either *ne* or *pas* add any kind of emphasis to the sentence, be it emphatic negation or negative polarity emphasis. The focus in this chapter is thus on how *ne* and *pas* output to canonical negation.

I discuss here the status of *ne* and *pas*. *Pas* is a focus negator, as it passes the requisite diagnostics (see chapter two and de Clercq 2013). For example, *pas* is used contrastively (5).

(5) **pas** longue, mais ennuyeuse
NEG long but boring

[1]The gloss in (4) is my own.

'not long, but boring.' adapted from de Clercq (2013, p. 50)

Pas is ruled out as a hi focus or perhaps all-purpose focus negator by the fact that it is not used as a negative reply, this function being filled by *non* (6-b).

(6) adapted from Authier (2013, p. 346)

a. Q: Est-ce que Jason est tombé? 'Did Jason fall?'

b. A: **Non**, il n'est pas tombé. 'No, he didn't fall.'

As a lo focus negator of status XP, *pas* does not head Neg2P, but is structurally lower. Similar to my analysis of English *not* in chapter two, I argue that *pas* bears both [iNEG1] and [iNEG2], and bears the [NEG_{FOC}] feature when negating an antecedent (as with contrastive negation in (5)), but not used with sentential negation.

Schapansky (2002, 2010) argues that *ne* is a contrary negator in registers of French where *ne* is maintained. I analyze *ne* as a hi contrary negator as it appears in the TP domain of the clause. She argues that bare *ne*, referring to *ne* occurring without *pas*, is contrary as it associates with deontic modality and cannot be used as metalinguistic negation, unlike contradictory negation which associates with epistemic modality and can be used as metalinguistic negation (see chapter two and also Horn (1989)). *Ne* and *pas* in tandem impart contradictory negation in (7-a) and associates with epistemic modality, while *ne* alone imparts contrary negation in (7-b) and associates with deontic modality.

(7) adapted from Schapansky (2002, p. 811)

a. Je **ne** peux **pas** trahir qui que ce soit.
'I cannot betray anyone.' EPISTEMIC

b. Je **ne** peux trahir personne.
'I cannot betray anyone.' DEONTIC

See chapter two for similar facts in English. Contradictory (8-a), but not contrary

negation (8-b), can be used as metalinguistic negation in English. (8) is repeated from chapter two.

(8) Schapansky (2010, p. 111)

a. She is not happy, she is ecstatic.

b. She is unhappy, *she is ecstatic.

Schapansky notes a similar paradigm for French in (9). In (9-a), *ne* and *pas* together pattern with contradictory negation in (8-a) in permitting metalinguistic negation, while bare *ne* in (9-b) does not.

(9) adapted from Schapansky (2010, p. 111)

a. Je **ne** peux **pas** manger, je peux dévorer.
'I cannot eat, I can devour.'

b. Je **ne** peux manger, *je peux dévorer.
'I cannot eat, I can devour.'

I adopt Schapansky's arguments that *ne* is a contrary negator. More importantly, I follow Schapansky in arguing that *ne* has negative import in registers where it is maintained.

A puzzle thus arises as to how two negators imparting contrary and focus negation respectively output to one instance of contradictory negation. Of course, one could posit that *ne* is ambiguous and perhaps resolve this puzzle by stating that French has both a *ne* devoid of semantic content and a second, contentful *ne*. I take the same tack as Schapansky (2002, 2010) in arguing that this is not the case as this hypothetical analysis lacks parsimony[2].

[2]I follow Choi and Lee (2017) and Tahar (2018) and assume that *ne* is contentful even in so-called 'expletive 'environments such as those in (10). *Ne* is argued in both of these works to trigger a positivity bias on behalf of the speaker.

(10) Je crains qu'il **ne** vienne.
I fear that he NEG come-SUBJ

Although an analysis of n-words goes beyond the scope of this thesis, as was discussed in chapter one, I discuss the interaction among n-words, *ne*, and *pas* in order to buttress my analysis of syntactic agreement. An n-word subject (11-a) or object (11-b) co-occurring with optional *ne* outputs to one instance of negation. With two n-words and an optional *ne*, the result is that the sentence is ambiguous and can either realize one or two logical negations (11-c)[3]. These facts are discussed in Zeijlstra (2009).

(12) adapted from Zeijlstra (2009)

a. **Personne** (**ne**) mange.
nobody NEG eats
'Nobody eats.'

b. Jean (**ne**) mange **rien**.
Jean NEG eats nothing
'Jean doesn't eat anything.'

c. **Personne** (**ne**) mange **rien**.
Nobody NEG eats nothing
'Nobody eats anything.' or 'Nobody eats nothing.' (double negation)

The data in (12) suggest that n-words are capable of signaling sentential nega-

'I fear that he will come' (Speaker believes he is coming)
adapted from Choi and Lee (2017, p. 192)

I do not provide an analysis of *ne* in environments like (10). I point out the fact that *ne* has semantic import here to address a possible rejoinder that *ne* appears to have no semantic import in certain environments, as is commonly assumed in the literature. I set aside how *ne* marks a positivity bias in (10) for future research.

[3]The same facts for two n-words can be extended to three or more n-words (Rowlett 1998, de Swart and Sag 2002, among others).

(11) adapted from de Swart and Sag (2002, p. 386)

a. **Personne ne** dit **rien** à **personne**.
nobody NEG says nothing to nobody
'Nobody says anything to anyone.'

b. **Personne ne** dit **jamais rien** à **personne**.
Nobody NEG says never nothing to nobody
'Nobody ever says anything to anyone.'

I focus my attention mostly on sentences realizing two or less n-words to keep the discussion simple.

tion (Rowlett, 1998). I argue in §4.4 that sentential negation arises in (12) from a negative operator originating within an n-word and moving to a specifier position in Spec,*v*P, valuing Neg2^0 specifically when v_{focus}P is not realized. Multiple negative operators, due to the presence of multiple n-words, undergo absorption in the manner of Haegeman and Zanuttini (1991) (*neg-factorisation* in their terms), such that one negative operator is realized. The operator movement aspect of this analysis is similar to Mathieu (2001) and his analysis of n-words in French. In a manner similar to Mathieu (2001), I leave open the possibility that one operator unselectively binds all of the n-words in its scope.

An interesting thing happens when one (13) or more n-words (14) co-occur with *pas*. Regardless of whether or not *ne* is realized, the result is double negation (Rowlett 1998, Mathieu 2001, Zeijlstra 2009, among others), specifically in the register of French discussed here (more on other registers of French in §4.4).

(13) Jean (**ne**) mange **pas rien**.
Jean NEG eats NEG nothing
'Jean doesn't eat nothing.' (double negation)

adapted from Zeijlstra (2009)

(14) **Personne** (**ne**) mange **pas rien**.
nobody NEG eats NEG nothing
'Nobody doesn't eat anything.' (double negation)

adapted from Zeijlstra (2009)

(13) and (14) present a puzzle: Why does the co-occurrence of *pas* and one or more n-word yield double negation? Furthermore, why is it that adding a second n-word as in (14) does not yield something like triple negation outputting to one instance of negation (a point noted in Rowlett 1998)? What do these facts tell us about the semantic and syntactic properties of n-words? In §4.4 I provide an analysis of the double negation reading in (13) and (14).

To summarize, the relevant puzzles of bipartite negation include (i) accounting for *ne* and *pas* appearing in tandem and importing one instance of sentential (contradictory) negation, given that both constituents are interpretable for negation, (ii) accounting for *ne* and one or more n-words outputting to one instance of sentential negation, and (iii) accounting for *pas* and one or more n-words outputting to double negation. The first puzzle is addressed in §4.3 and the second and third in §4.4.

In chapter five I discuss another puzzle: How is it that three negators can output to one instance of negation in (15), noting that this sentence is an example of negative polarity emphasis (but still crucially outputting to one instance of logical negation with an added semantic effect)?

(15) Oh que **non** que je (**ne**) vous le vendrai **pas**.
oh that no that I NEG you it will sell NEG
'Of course I wouldn't sell you that!'

adapted from Poletto and Zanuttini (2013, p. 130)

based off of ex. (111) in Authier (2013, p. 386)

I give an analysis for French negative polarity emphasis in chapter five, delaying discussion until then as this chapter does not present the theoretical machinery necessary to analyze sentences like (15).

4.3 Bipartite Negation as Syntactic Agreement

I analyze bipartite negation in French as being the result of syntactic agreement. This analysis diverges from the analysis of French bipartite negation in Zeijlstra (2004), discussed later in this section, in the execution of the AGREE operation and diverges from the analysis I gave Sgaw Karen in chapter three in terms of the composition of the negators in the agreement chain. I focus here on accounting for instances of *ne* and *pas* appearing in tandem and analyze the import of n-words in

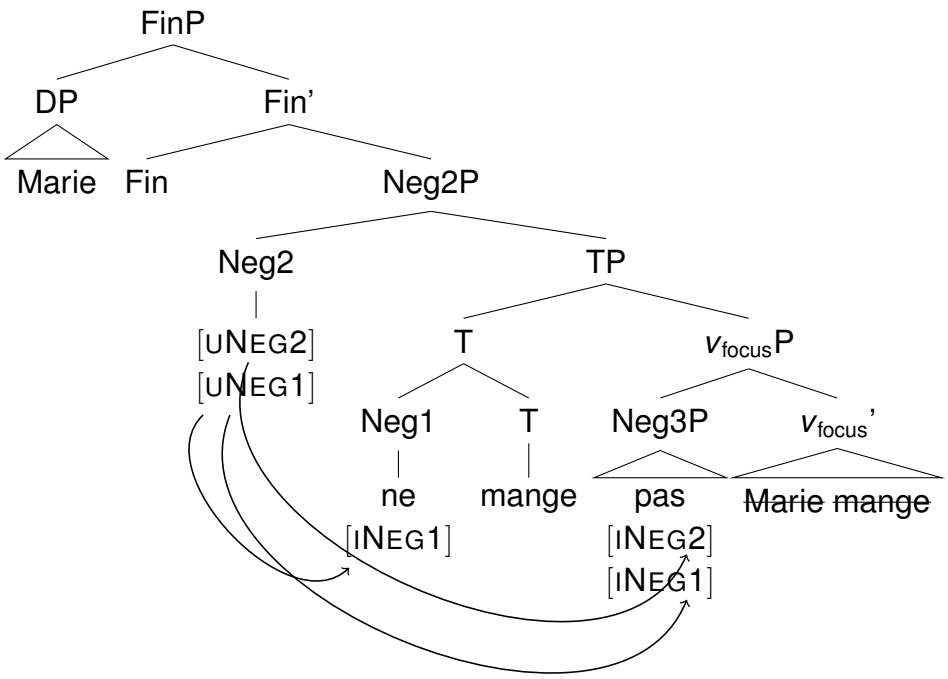
§4.4. (2) is repeated in (16) and is used as an exemplar sentence in this section.

(16) Marie (**ne**) mange **pas**.
Marie NEG eats NEG
'Marie doesn't eat.' Zeijlstra (2009, p.447)

Ne and *pas* qualify as hi contrary and lo focus negators respectively, given the diagnostics discussed previously. Neither *ne* nor *pas* are hi contradictory negators responsible for imparting sentential negation. Neg2^0 is null and bears both [uNEG1] and [uNEG2], as there is no overt counterpart to Neg2^0 in French. Neg2^0 must be in agreement with one or more constituent bearing the requisite interpretable negative features. Both hi contrary and lo focus negators are structurally lower than Neg2^0. *Ne*, being a contrary negator, bears [iNEG1], this feature being interpretable because *ne* does not require a second constituent to value this feature as *ne* can stand alone. *Pas*, being a focus negator, bears [iNEG1] and [iNEG2]. Following Péters (1999) and Schapansky (2010), I assume that *ne* merges with T^0. *Pas*, being a focus negator, is parallel to English *not* and is merged in v_{focus}P. In instances where both *ne* and *pas* are realized, Neg2^0 probes down to value both its features and finds both *ne* and *pas*. The framework is set up such that [uNEG1] does not stop at the first interpretable goal (recall discussion in chapter two) (17). The importance of the probe continuing on to the second [iNEG1] is that a single chain connecting these two interpretable features outputs to one semantic interpretation of that feature, which in tandem with the chain connecting [uNEG2] and [iNEG2] outputs to one instance of sentential negation[4].

[4]This framework differs from that of Deal (2015) where a single constituent bearing two probes stops when one of its probes gets valued, and the second probe continues and finds a second constituent to value that feature. The reason why I take the stance that a probe does not stop at the first interpretable goal is that I argue in my discussion of double negation for French and other languages that two interpretable features not bound in an agreement chain consist of two semantic interpretations of that feature. This does not occur with *ne* and *pas*, and thus this analysis requires some device to have these two constituents interpretable for [NEG1] occur together without having two semantic interpretations of that feature taking place. I argue that this is best done by having these features bound together in an agreement chain, this analysis having important consequences

(17) Marie **ne** mange **pas**.



Although I have been describing French as exhibiting bipartite negation, in reality I am analyzing French as exhibiting tripartite negation, where specifically one of the constituents is not overt. Although tripartite negation is perhaps a more accurate way of describing French sentential negation, I maintain the usage of bipartite negation, partially to reflect the aim of this thesis, and also because bipartite negation reflects that there are two overt constituents taking part in negation. For example, I could refer to English negation as bipartite negation, given that it involves one null and one overt constituent, although I choose not to do so.

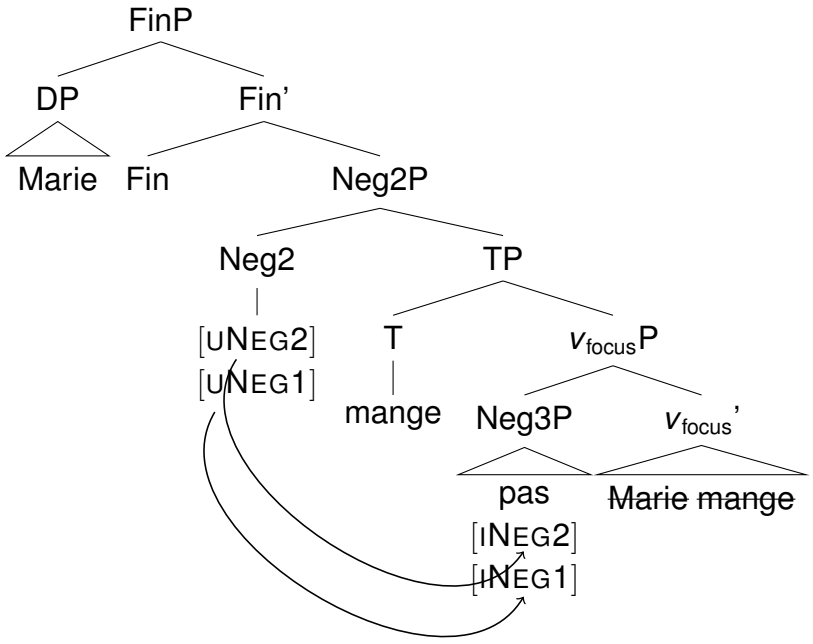
The two agreement chains in tandem in (17) are responsible for the single interpretation of contradictory negation. Recalling discussion in chapter two, AGREE operates in this framework such that a single probe can be valued by two goals, similar to Nevins (2007, 2011), and that two instances of an interpretable nega-

for negative tripling and quadrupling discussed in §4.7.

tion feature (here, specifically a subfeature of negation) may output to one logical interpretation of that feature, contra Zeijlstra (2004, 2008) and similar frameworks (Penka, 2011).

This framework succeeds in capturing a number of facts. First, there are two interpretably negative elements in the clause, *ne* and *pas*, and the output is one instance of contradictory negation. This framework allows us to capture this fact without recourse to complicating the feature makeup of either *ne* and *pas*. Second, this framework allows us to capture the fact that *ne* has negative import, but can be left out of the clause without affecting the semantics. (18) models (17) modulo *ne*-dropping.

(18) Marie mange **pas**.



The derivation in (18) outputs to one instance of logical negation in a similar manner to (17). Both [uNEG1] and [uNEG2] are valued, and sentential negation is interpreted at the top of the chain in $Neg2^0$. The main difference between (17) and (18) is that (17) realizes two instances of [iNEG1] in the chain, while (18) realizes

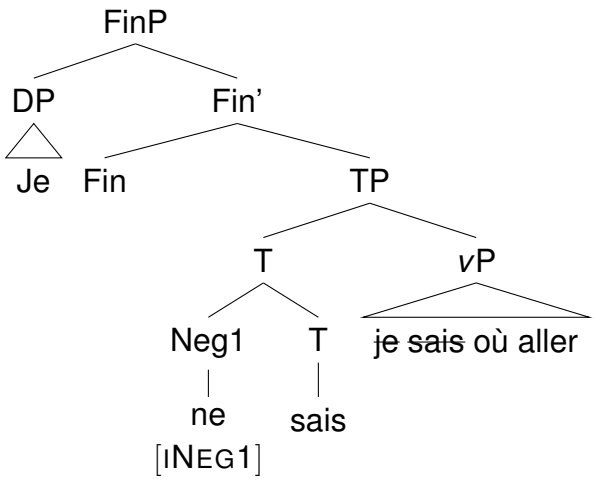
only one. The difference is immaterial: As long as the interpretable features are bound together in a chain, there is only interpretation of the feature. Thus, *ne* has negative import and can be left out of the sentence in the presence of *pas* and not affect the semantics of the sentence.

With the realization of bare *ne* (*ne* without either *pas* or an n-word), Neg2^0 is not activated, as no constituent would be available to value [uNEG2]. The only interpretation can be contrary negation[5].

(19) Je **ne** sais où aller.

I don't know where to go (I am uncertain as to where to go).

Schapansky (2010, p. 106)



As noted in Schapansky (2010), contrary negation is restricted in usage. I assume that instances where bare *ne* is ungrammatical are due to semantic and not syntactic factors. I refer the reader to Larrivée (1995) and Schapansky (2010) for restrictions on the use of bare *ne*. I do not wish to comment on these restrictions here as they go beyond the scope of analyzing bipartite negation.

An important insight of Schapansky's framework that I adopt is that *ne* has semantic import. It is typically assumed that *ne* on its own has no negative import

[5]Note that v_{focus}P is not realized in (19), as no constituent is present to activate it.

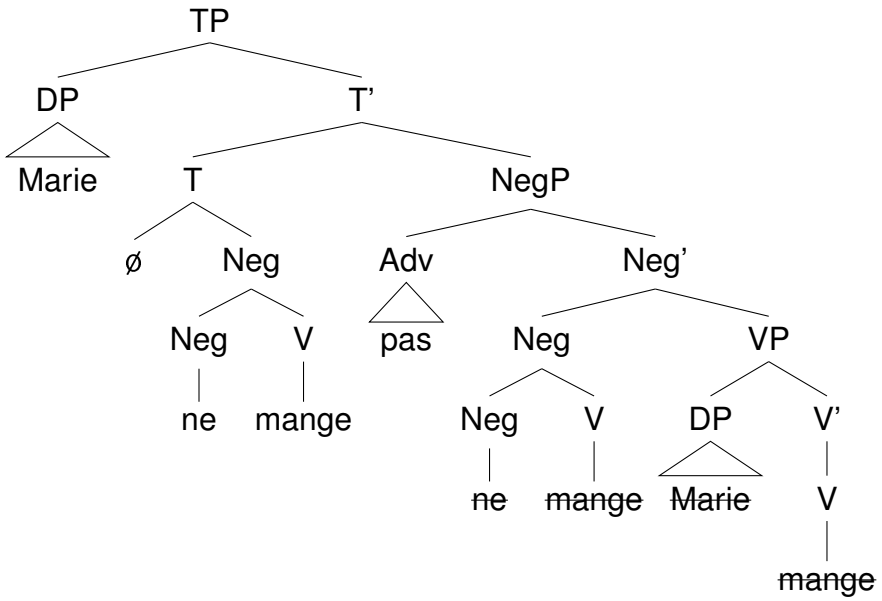
(Rowlett 1998, Zeijlstra 2004, 2008, 2009, among others). It is possible that *ne* is void of meaning in the registers of French analyzed in the frameworks just listed, so it may be the case that *ne* is a dummy element in certain varieties of French[6]. It is important to note that there are varieties of French where *ne* has semantic import and is optional when co-occurring with either *pas* or one or more n-words, these varieties of French resisting a dummy *ne* analysis.

I reject Spec-head agreement approaches of French negation as discussed in Pollock (1989), Ouhalla (1990), Haegeman (1995), and Rowlett (1998). In these analyses, *pas* and *ne* occur in a single projection of negation at one step of the derivation, with *pas* being the specifier and *ne* the head. The order of *ne* $>$ *pas* occurs when *ne* cliticizes to the verb and moves up the tree (20), noting that analyses diverge as to whether or not NegP follows or precedes TP ((20) shows the original order of TP $>$ NegP in Pollock (1989))[7].

(20) Marie (**ne**) mange **pas**.
Marie NEG eats NEG
'Marie doesn't eat.' Zeijlstra (2009, p. 447)

[6]Although note that Larrivée (1995) has pointed out that even in registers where *ne* is frequently dropped when co-occurring with *pas*, bare *ne* still functions in a limited set of environments, such as those discussed in Schapansky's work. It is possible that the analysis of *ne* as a dummy element in the literature stems mostly from the heavy focus on analyzing *ne* co-occurring with *pas* or an n-word in marking sentential negation.

[7]Note that the diagram in (20) is not given in Zeijlstra's work. The diagram is used to model the sentence in (20) in Pollock's framework.



As Spec-head agreement has fallen out of favor with the advent of probe-goal approaches to bipartite negation (see Zeijlstra 2004, Biberauer 2007, Roberts 2007, van Gelderen 2008, and Willis 2012, among others) and with syntactic theory more generally (see Chomsky 2000, 2001), I feel it is not necessary to issue a rejoinder to this specific approach, although see Péters (1999) for reasons why Spec-head agreement cannot apply to French, primarily in terms of deriving the order of *ne* $>$ *pas* in a sentence.

I reject analyses such as de Clercq (2013) and Rooryck (2017), not discussed here for reasons of space, that posit that *ne* is a deficient sentential negator that is parasitic on a second negative element to impart sentential negation in registers where *ne* is still active. Any analysis of bipartite negation in French assuming that *ne* is parasitic on the realization of *pas* (similar to *bə5* being parasitic on *tə1* in Sgaw Karen) cannot account for the semantic contribution of *ne* as a contrary negator in registers where *ne* is still active and is realized specifically without *pas*.

4.4 Pas, N-words, and Double Negation

In the previous section I provided an analysis for how *ne* and *pas* co-occurring outputs to one instance of sentential negation. This section extends the analysis to French n-words. Although a proper analysis of n-words goes beyond the scope of this thesis, a lingering question remains as to why n-words and *pas* in tandem yield double negation, given that this framework allows for two interpretably negative constituents to exist tautoclausally and output to one instance of logical negation, as was argued for *ne* and *pas* in §4.3. The relevant information is as follows and is rehashed from §4.2. The co-occurrence of *ne* with a subject (21-a) or object (21-b) n-word results in a single interpretation of negation. When two n-words are present, the sentence is ambiguous between one or two interpretations of negation (21-c). (12) is repeated in (21).

(21) adapted from Zeijlstra (2009)

a. **Personne** (**ne**) mange.
nobody NEG eats
'Nobody eats.'

b. Jean (**ne**) mange **rien**.
Jean NEG eats nothing
'Jean doesn't eat anything.'

c. **Personne** (**ne**) mange **rien**.
Nobody NEG eats nothing
'Nobody eats anything.' or 'Nobody eats nothing.' (double negation)

When *pas* and one or more n-words co-occur, with or without *ne*, the result is double negation. (13) and (14) are repeated in (22) and (23).

(22) Jean (**ne**) mange **pas rien**.
Jean NEG eats NEG nothing
'Jean doesn't eat nothing.' (double negation)

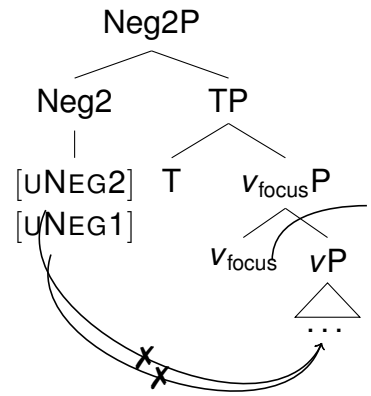
adapted from Zeijlstra (2009)

(23) **Personne** (**ne**) mange **pas rien**.
nobody NEG eats NEG nothing
'Nobody doesn't eat anything.' (double negation)

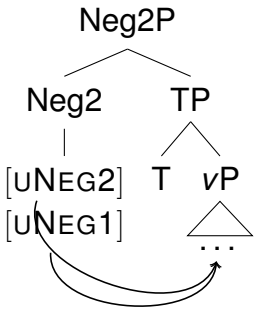
adapted from Zeijlstra (2009)

These facts hold true for registers of French where *ne* is maintained and has contrary import (see Schapansky 2010). The goal of this chapter is to derive the double negation readings in (23) and (22-c) and to further the discussion on AGREE discussed in chapters two and three such that the projection of v_{focus}P (for English) or the presence of a phase boundary (for Sgaw Karen) blocks Neg2^0 from probing further down the tree (24). Without v_{focus}P, Neg2^0 can probe further (25).

(24) v_{focus}P Blocks AGREE from Probing into *v*P



(25) Neg2^0 Probes Into *v*P



All post-verbal n-words appear structurally lower than *pas*. Rowlett (1998) uses

the position of adverbs to test for structural height. The n-word *rien* 'nothing' appears after the adverb *encore* 'yet,' and *pas* appears before it (26)[8].

(26) Jean n'a (**pas**) encore (**rien**) mangé.
Jean NEG'has (PAS) yet (nothing) eaten
'Jean hasn't eaten (anything) yet.' PAS > RIEN

adapted from Rowlett (1998, p. 194)

Assuming that adverbial positions are fixed (see Cinque 1999 and earlier work), (26) provides evidence for the structural order of *pas* > *rien*.

There is some variation in the structural height of n-words. Rowlett (1998) shows that *rien* 'nothing' appears structurally higher than *personne* 'nobody,' as the former precedes the past participle *vu* 'seen' and the latter follows it.

(27) Jean n'a (**rien**) vu (**personne**).
Jean NEG'has (nothing) seen (nobody)
'Jean hasn't seen anyone/anything.' RIEN > PERSONNE

adapted from Rowlett (1998, p. 188)

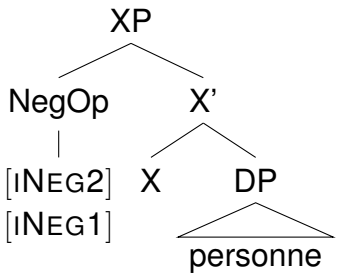
Although there is some variation in the merge position of n-words, crucially all post-verbal n-words in French appear structurally lower than *pas*, as shown in Rowlett (1998), an exhaustive list of n-words and the tests diagnosing their structural height not presented here for reasons of space.

The data so far suggests that n-words originate lower than *pas* and that n-words signal sentential negation. In this framework, sentential negation is always interpreted at Neg2^0. When Neg2^0 is null, as has been shown for French, sentential negation arises from Neg2^0 being valued by a structurally lower constituent. I adopt a variant of the analysis of Mathieu (2001) such that n-words in French realize an internal negative operator endowed with [iNEG1] and [iNEG2] and then undergo null operator movement to Spec,*v*P. XP stands for whatever projection houses the

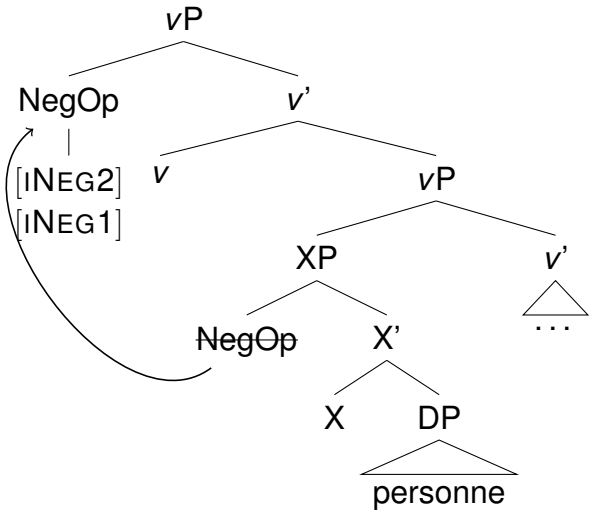
[8](26) is set up such that it shows where *pas* and *rien* would show up in a sentence if either were to occur.

negative operator (possibly a DP-internal focus position[9]). I use *personne* and *rien* as exemplars of n-words.

(28) Internal Structure of *Personne*



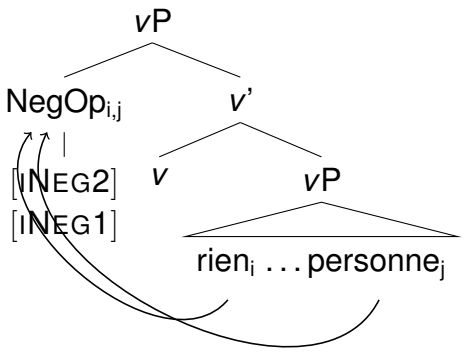
(29) Null Operator Movement



In instances where there is more than one n-word, multiple null operators move to Spec,*v*P and undergo neg-absorption (Haegeman and Zanuttini 1991, Mathieu 2001).

(30) Neg-absorption

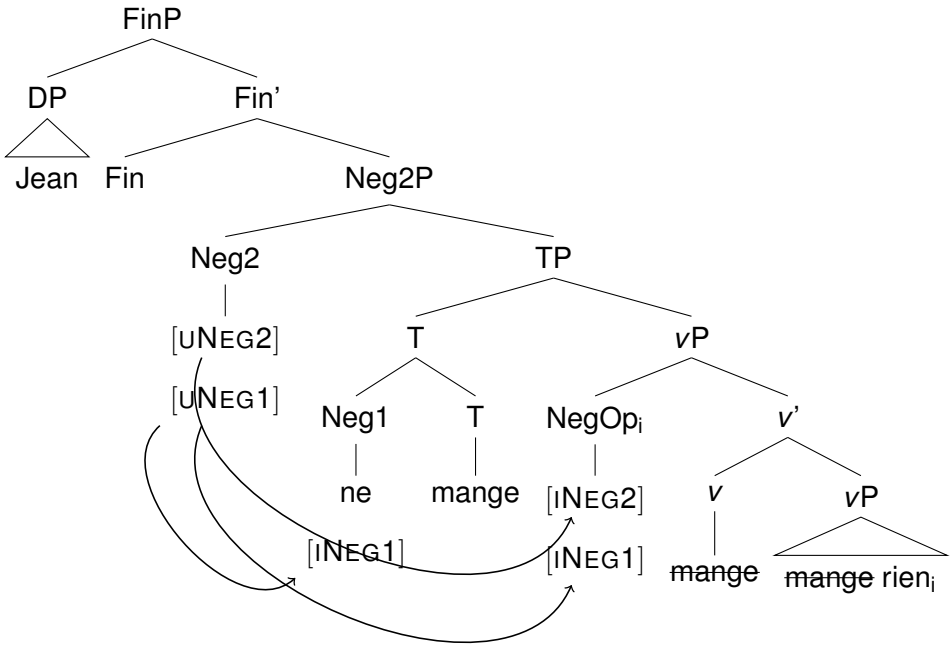
[9]See Aboh (2004) for evidence for DP-internal focus positions.



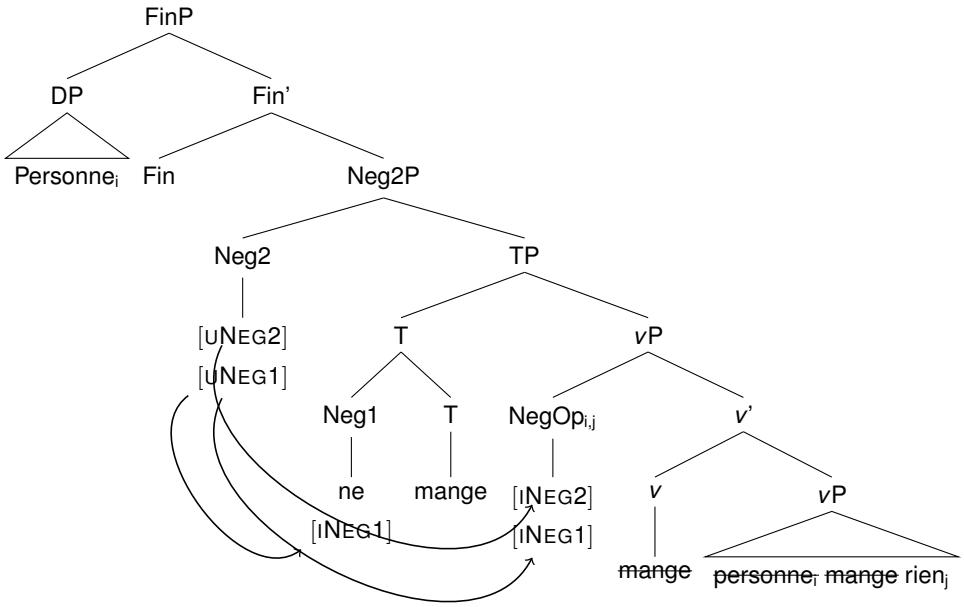
Mathieu's analysis and this analysis differ in terms of where the negative operator is realized. In Mathieu's analysis, the operator competes for the same location as *pas* and in my analysis it appears lower than *pas*. Furthermore, Mathieu's analysis does not invoke the AGREE operation. A crucial aspect of adopting neg-absorption as illustrated in (30) is that there is one interpretation of negation for as many n-words as there are in the domain of the extracted operator(s), accounting for the fact that one or more n-words (without *pas*) output to one instance of negation (although two or more n-words may output to double negation, more on this in a bit). I assume that subject n-words originate lower than the highest *v*P before moving up the tree, to be shown in forthcoming examples.

When *pas* is not realized, v_{focus}P is not projected. Under this arrangement, the AGREE operation initiated by Neg2^0 can probe to Spec,*v*P containing NegOp and can be valued by NegOp when one (31) or two (32) n-words are present, noting that (32) is the single negation reading of this sentence (more on the double negation reading later).

(31) Jean **ne** mange **rien**. = Jean didn't eat anything.



(32) **Personne ne** mange **rien**. = Nobody ate anything.

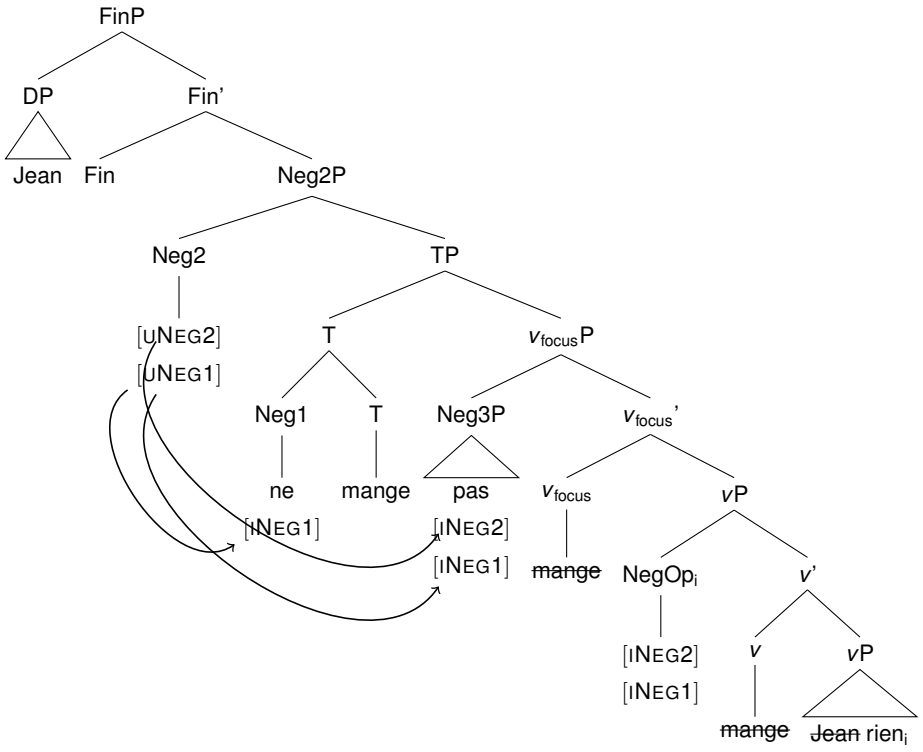


The chains formed by AGREE in (31) and (32) are similar to the chains in §4.3 for *ne* and *pas* realized in tandem. Neg2^0 probes down and gets [uNEG1] valued

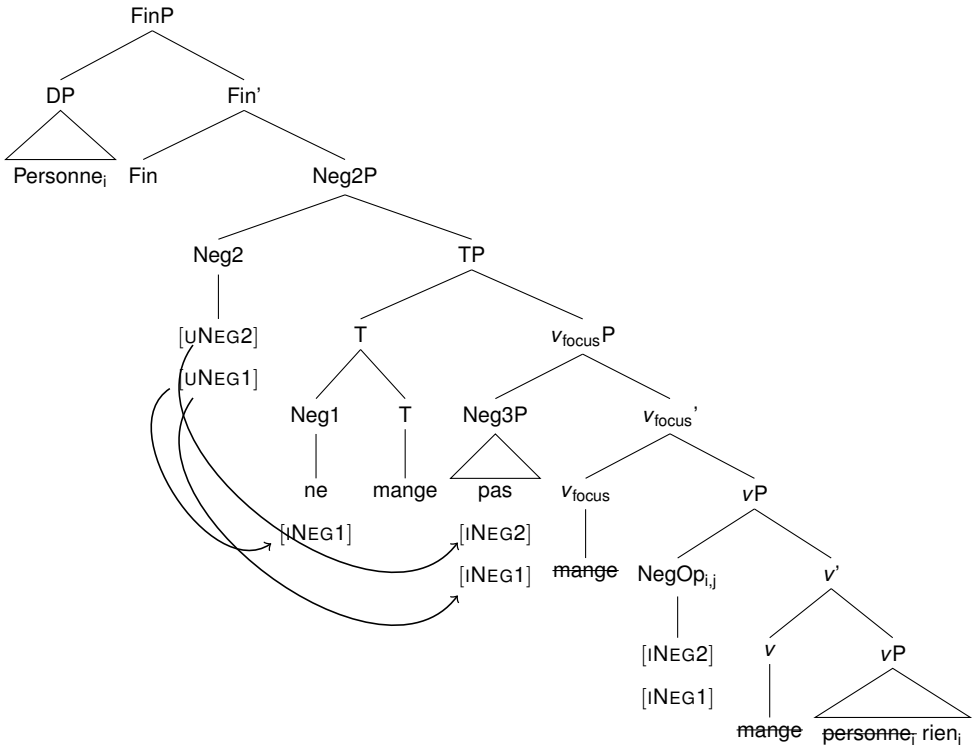
by *ne* and then proceeds to go further and gets both [uNEG1] and [uNEG2] valued by NegOp. The two agreement chains together output to one instance of sentential negation. If *ne* were to be left out of the derivation, then both [uNEG1] and [uNEG2] would still be valued by NegOp, accounting for the fact that *ne* is optional.

This framework accounts for how multiple instances of n-words along with an optional *ne* may output to one instance of sentential negation. More will be stated in on how multiple n-words can also output to double negation, as was shown previously in (12). When *pas* and one or more n-words are realized, both v_{focus}P and NegOp in the structurally lower *v*P are realized, the former projection housing *pas* and the latter NegOp. With the realization of v_{focus}P, Neg2^0 can only probe down as far as *pas*, with NegOp not taking part in the agreement chain with *ne* and *pas*. As both *pas* and NegOp have the feature composition to impart contradictory negation, the two constituents, not bound together in an agreement chain, result in double negation. This occurs regardless if there is one (33) or more (34) n-words, as there is one NegOp for any number of n-words in its domain. The lowest trace of *mange* is left out of (33) and (34) to increase readability.

(33) Jean **ne** mange **pas rien**. = Jean didn't eat nothing. (double negation)



(34) **Personne ne** mange **pas rien**. = Nobody ate nothing. (double negation)



The negative operator analysis here predicts that *pas* and two n-words outputs

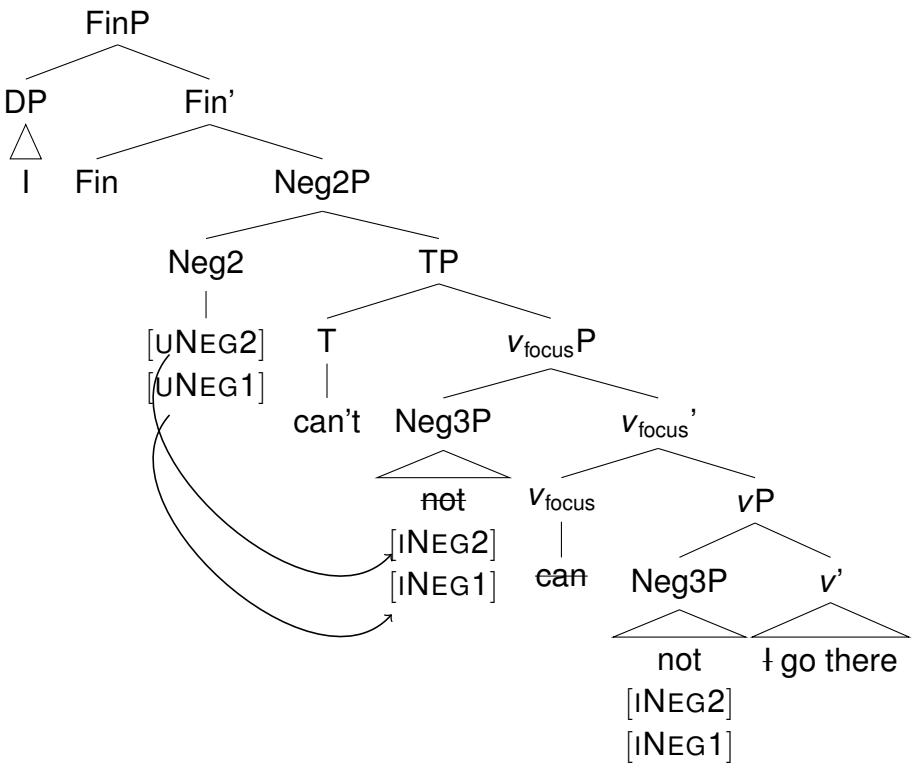
to double and not triple negation[10] (a point noted in Rowlett 1998). This framework captures this fact as multiple n-words undergo null operator movement and subsequent neg-absorption, outputting to one interpretable negative operator, and thus it is immaterial how many n-words appear in tandem with *pas*, double negation is always the result of the agreement chain being realized in tandem with the lower negative operator.

Double negation in French is much like double negation in English in the sense that in both languages double negation arises when an agreement chain initiated by Neg2^0 co-occurs with a second, contentful negative element imparting logical contradiction, whether this be overt (*not* in English) or null (NegOp in French). This is similar to the analysis of double negation in Holmberg (2016) as the result of what he terms high and low negation being realized in tandem, where high negation is merged in Spec,*v*P and low negation in Spec,VP, parallel here to negation merged in Spec,v_{focus}P and Spec,*v*P respectively. In English, v_{focus}P blocks AGREE from forming a chain with the lower negative element (35). (35) is repeated from chapter two[11].

(35) I ca**n't not** go there. = I must go there.

[10] In most frameworks of logic, three instances of negation (triple negation) outputs to one instance of negation.

[11] (35) does not show the m-merge operation that converts *not* and *can* into *can't* for reasons of space (recall discussion in chapter two on m-merge).



This arrangement is also similar to double negation in Sgaw Karen, as discussed in chapter three. For Sgaw Karen, it was hypothesized that a phase boundary blocked the agreement chain from reaching the structurally lower instance of *tə1*. I remain somewhat agnostic about phase boundaries in French. I entertain the possibility that French maintains a phase boundary as per standard assumptions of phase theory, and perhaps, without the projection of v_{focus}P, the phase edge of the *v*P domain includes NegOp. A benefit of this analysis is that the source of double negation is the same in English as it is in French and similar to Sgaw Karen.

A benefit of invoking the realization of v_{focus}P as crucial for obtaining a double negation reading is that it explains why in certain instances two n-words with an optional *ne* and without *pas* can realize double negation, as alluded to earlier[12]. As discussed on https://linguistlist.org/issues//10/10-1799.html (cited in Giannakidou 2006), the double negation reading with two n-words without *pas* occurs when the

[12]See de Swart and Sag (2002), Mathieu (2001), Giannakidou (2006), Zeijlstra (2009), on the interpretation of two n-words being ambiguous between a single and double negation reading.

subject n-word is stressed (36)[13].

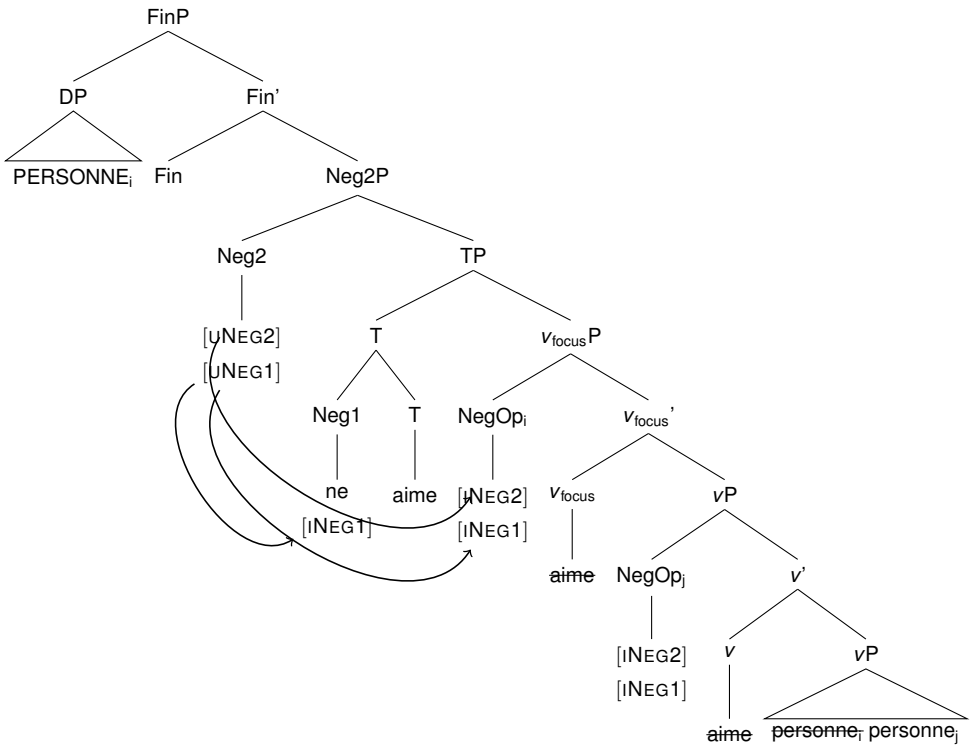
(36) **PERSONNE n**'aime **personne**.
Nobody NEG'loves nobody
Nobody loves nobody. = Everybody loves somebody.

I outline a tentative suggestion for how the double negation arises in (36). I assume that stressing the subject n-word leads to the activation of v_{focus}P, given the similarities between focus prosody and semantics. I assume that the subject n-word moves through this projection on its way up to Spec,FinP (37). I assume that the subject n-word strands its negative operator in Spec,v_{focus}P, and thus the operator moves along with the stressed n-word into Spec,v_{focus}P. This a tentative assumption, and I keep to it to emphasize the connection among prosody, v_{focus}P, and the realization of double negation, assuming that prosodic focus realizes the projection v_{focus}P. There are thus two negative operators, neither of the two undergoing neg-absorption being that the two are in different specifier positions. (37) diagrams (36). Note that the lowest trace of *aime* and the stranding of the subject negative operator in Spec,v_{focus}P are left out of (37) to increase readability[14].

(37) **PERSONNE n**'aime **personne** = 'Nobody loves nobody.'

[13](36) is adapted from https://linguistlist.org/issues//10/10-1799.html, this source and a comparable example discussed in Giannakidou (2006).

[14](37) has been adapted to show emphasis on the first instance of *personne*.



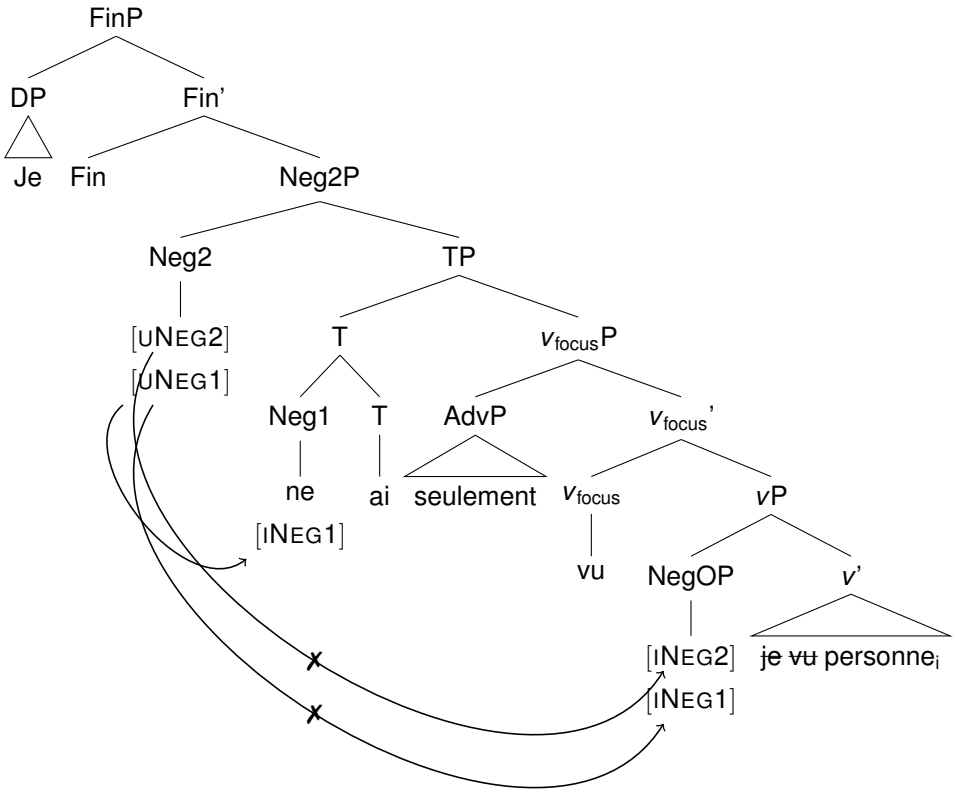
The double negation reading in (37) arises in a similar fashion to *pas* co-occurring with one or more n-words. Neg2^0 can only probe as far down as NegOp$_i$ in Spec,v_{focus}P. NegOp$_j$ is realized below v_{focus}P and, due to its position, is not realized in the agreement chain, resulting in double negation. That prosodic focus appears to be necessary to license the double negation reading gives credence to the fact that v_{focus}P is required to yield the double negation reading in French. That v_{focus}P is activated with focus may explain the data in (38) where the object n-word and *ne* co-occurring with a stressed participle results in ungrammaticality.

(38) *Je **n**'ai seulement VU **personne**.
I NEG'have only seen nobody
'I haven't only SEEN anybody.' adapted from Mathieu (2001, p. 328)

I offer a somewhat tentative analysis of the data in (38). Assuming that v_{focus}P is activated due to the emphasis on *vu*, Neg2^0 can only get one of its two unvalued features valued (specifically [uNEG1]) and cannot probe down to NegOp to get

[uNEG2] valued. The derivation thus crashes. (39) diagrams (38)[15].

(39) [uNEG2] Left Unvalued



(39) shows that the realization of v_{focus}P blocks AGREE, even in cases where the element or elements associated with v_{focus}P are not negative. In this case, the sentence does not realize double negation and is simply ungrammatical due to a feature being unvalued at the end of the derivation. I assume further that semantic constraints prevent bare *ne* in this instance simply imparting contrary negation.

As a final point, note that some dialects of French allow the co-occurrence of *pas* and one or more n-words such that the result is one instance of logical negation. This is the case in Quebecois French (see Rowlett 1998, Zeijlstra 2009)

[15] I assume that *seulement* 'only' appears in Spec,v_{focus}P, although it could be somewhere else. I abstract away from where *ai* 'have' is base-generated in (39).

(40) and some dialects of Metropolitan French discussed in Schapansky (2002), not discussed here.

(40) Je juge **pas personne**.
I judge NEG nobody
'I don't judge anybody.' Zeijlstra (2008, p. 18)

I can only speculate on the differences between Quebecois French and the dialect of French discussed in this section. One possibility is that *pas* in Quebecois French does not activate v_{focus}P, even though it qualifies as a focus negator, and may undergo neg-absorption with the operator(s) that are extracted from n-words. Under this arrangement, Neg2^0 probes into Spec,*v*P and forms an agreement chain with a single NegOp, outputting to one instance of negation. As was shown for English, focus negators such as *not* do not have to activate v_{focus}P, so it is possible that there is some cross-lingusitic variation in terms of the whether or not focus negators realize this projection in sentential negation contexts. I set a proper analysis of Quebecois French aside for future analysis.

This section was something of a detour from the main discussion on bipartite negation in this chapter. This detour was necessary to motivate a constraint on AGREE such that the projection of a focus phrase, specifically v_{focus}P, blocks the AGREE operation from probing further down. This constraint was necessary to motivate the fact in certain instances two interpretably negative constituents can be realized in an agreement chain and output to one instance of negation (*ne* and *pas*/n-word) and to make sense of how two interpretably negative constituents can result in double negation (*pas* and an n-word). This framework, unlike many other frameworks (Rowlett 1998, de Swart and Sag 2002, Zeijlstra 2009, among others), derives the link between prosody and double negation readings. Furthermore, this framework makes important and testable predictions as to when double negation and single negation readings are realized not only in French but cross-linguistically,

to be expanded on in future work.

4.5 Jespersen's Cycle in French

French has participated in Jespersen's Cycle (see Hansen and Visconti 2012 for an overview, and de Clercq 2013 and Rooryck 2017 for more recent analyses of the phenomenon for French), a diachronic cycle of negation that was touched upon in chapter two. I simplify here the stages of Jespersen's Cycle discussed in the literature for expository purposes and discuss a more fine-grained version of Jespersen's Cycle in forthcoming discussion in this section. In the first stage of Jespersen's Cycle, *ne* marks sentential negation on its own (41-a). *Ne* becomes structurally weaker in the second stage and is accompanied by a second negator (either *pas* as depicted in (41-b) or an n-word, not depicted here). In the final stage, as exemplified by some registers of Quebecois French (see Zeijlstra 2008), *ne* disappears and *pas* is the only constituent left marking sentential negation (aside from n-words) (41-c). (41) is repeated from chapter two.

(41) adapted from Hansen and Visconti (2012, p. 455)

a. je **ne** dis

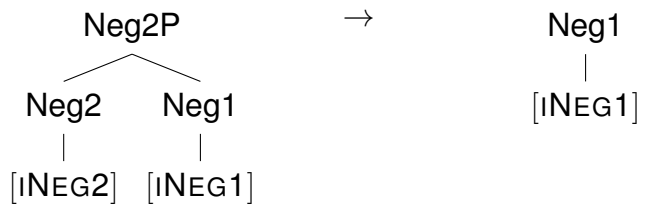
b. je **ne** dis **pas**

c. je dis **pas**
I NEG say NEG
'I don't say'

I offer my own syntactic/semantic analysis of Jespersen's Cycle in French using the tools made available by this framework. This framework is capable of combining the fact that *ne* is phonologically reduced, equivalent to having deficient syntactic structure in this framework (as well as the analysis of de Clercq 2013), and that *ne* has shifted in meaning from being a contradictory to a contrary negator (following

Schapansky 2002, 2010). As I follow Schapansky's analysis of *ne*, it follows that I in turn reject any number of analyses that assume that *ne* changed such that it no longer had semantic import on its own when co-occurring with *pas* in stage two (Rowlett 1998, Zeijlstra 2004, 2008, 2009, among others). I argue that from stage one to stage two *ne* reduced in structure from Neg2P to Neg1 (42).

(42) *ne*: Neg2P $\rightarrow$ Neg1



The Neg2P $\rightarrow$ Neg1 conversion results in the fact that [iNEG2] is lost, resulting in contrary negation. The loss of the projection bearing [iNEG2] also has the consequence that *ne* is now a clitic (minimal/maximal element). As a clitic, *ne* undergoes liaison as in (43), which was not the case in stage one (see Hansen 2009). (43) is repeated from chapter two.

(43) Personne **n**'a avalé de poison.
nobody NEG-has swallowed of poison
'No one swallowed any poison.' Rowlett (1998, p. 177)

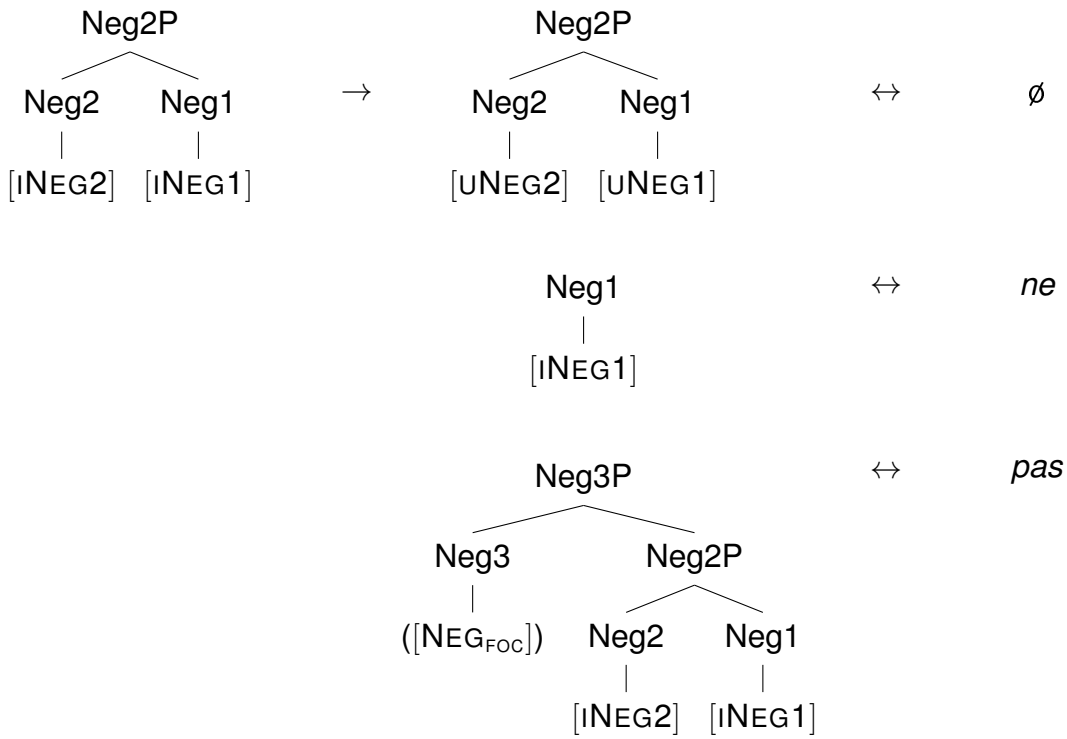
The Neg2P $\rightarrow$ Neg1 shift results in a combination of syntactic, semantic, and morphophonological changes, all captured by a one fell swoop reduction in syntactic structure. Existing accounts of Jespersen's Cycle in French, to the best of my knowledge, do not shed light on all of these facts in tandem. The work of Schapansky (2002, 2010) comes close to capturing these facts. Schapansky notes that in stage two of Jespersen's Cycle (not in those exact words), *ne* goes from being a contradictory to a contrary negator. She also notes that *ne* becomes phonologically weaker, although her framework does not formalize the connection between

semantic and morphophonological change.

The transition from stage one to stage two of Jespersen's Cycle in French involves at least three changes. First, the constituent historically heading Neg2P *ne* transitions to becoming Neg1. Second, sentential negation becomes marked by a null Neg2P uninterpretable for negation. Third, as modern day *ne* is incapable of valuing all the features of Neg2P, it follows that a constituent needed to be added to the lexicon that is capable of valuing Neg2P, here *pas*. In this change, *pas* transitioned from being a minimizer (meaning 'step') to being a focus negator[16]. That n-words are capable of valuing Neg2P is not sufficient to cover all instances of sentential negation, given that sentences do not always realize n-words. Thus, stage one to stage two of Jespersen's Cycle marks the transition from one to three negative constituents, Neg2P being null, *ne* being optional, and *pas* (I set aside n-words here) being the obligatory negator.

(44) Stage One $\rightarrow$ Stage Two

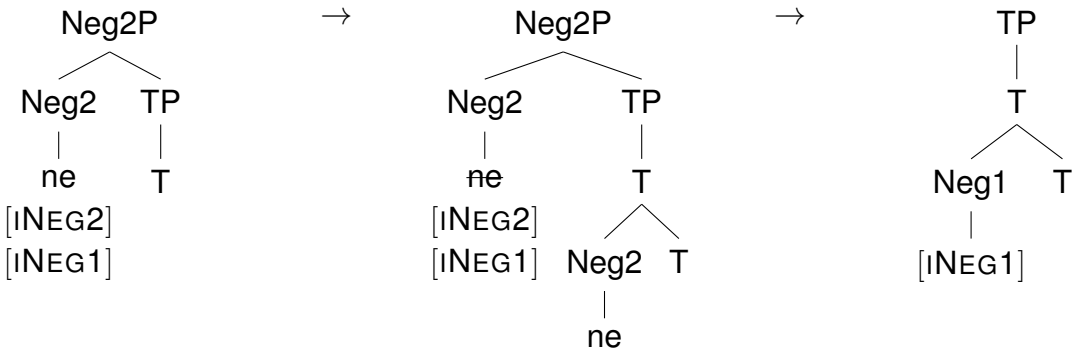
[16]See Hansen and Visconti (2012) for more information on *pas*'s transition from being a minimizer to a negator.



This analysis diverges from previous formalizations of Jespersen's Cycle in French in that the transition from stage one to stage two marks the change from there being one to three constituents taking part in sentential negation (taking null Neg2P to be a constituent) instead of one to two constituents (Schapansky 2002, 2010, van Gelderen 2008, Hansen and Visconti 2012, among others). The primary impetus of *pas* being re-analyzed as a focus negator is to value Neg2P given that *ne* can no longer do so. It is not clear what plays a greater role in triggering the transition from stage one to stage two, either it being primarily morphophonological (Jespersen, 1917) or semanticopragmatic (Kiparsky and Condoravdi, 2006). I leave these questions open, although the evidence for phonetic weakening of *ne* triggering reanalysis appears to be quite weak (see Hansen and Visconti 2012). The important takeaway here is that, in this framework, the reanalysis of *pas* to being a focus negator was necessary to value Neg2^0's uninterpretable features. In many frameworks, it is simply stipulated that *pas* is needed to reinforce a weakened *ne*, the term reinforcement typically being employed in a vague manner.

It is possible that, between transitioning from being Neg2P to Neg1P, *ne* might have gone through a stage where it underwent lowering in the manner argued for *tə1* in Sgaw Karen. The idea is that *ne* could have gone through a stage where it was a head undergoing lowering, becoming a clitic-like element attaching to T^0 at spell out. It would then be possible that *ne*-lowering was reanalyzed such that *ne* is base-generated as being a clitic merging with T^0 (45).

(45) *ne*: Neg2P $\rightarrow$ Neg2^0 Lowering $\rightarrow$ Neg1



I leave whether or not a hypothetical *ne*-lowering stage existed for future research.

The transition from stage one to stage two of Jespersen's Cycle as discussed for French here is often analyzed as having intermediary stages, as depicted in (46). The two important additions are the stages exemplified in (46-b) where *pas* is optional and (46-c) where both *ne* and *pas* are obligatory[17] (46).

(46) adapted from Hansen and Visconti (2012, p. 455)

a. je **ne** dis

b. je **ne** dis (**pas**)

c. je **ne** dis **pas**

d. je (**ne**) dis **pas**

[17](46) leaves out the stage after (46-e) in which *pas* becomes a sentential pre-verbal head as in Louisiana French Creole (see Hansen and Visconti 2012).

e. je dis **pas**
I NEG say NEG
'I don't say'

It is important to note that the stage exemplified by (46-b) does not typically refer to canonical bipartite negation and has specific pragmatic effects when the structurally lower negator is added. In historical French, the addition of *pas* in (45-b) conveyed something like emphatic negation (see Hansen and Visconti 2012)[18]. Furthermore, it is questionable whether or not the stage of both *ne* and *pas* being obligatory ever really existed. *Ne*-dropping appears to be productive from as far back as the sixteenth and seventeenth centuries (Harris 1978, p. 26, cited in Rowlett 1998, p. 154), and I have not found a definitive source giving concrete evidence that both negators were obligatory. I leave an analysis of the hypothetical stage of Jespersen's Cycle where both *ne* and *pas* are obligatory and whether or not it actually existed for future work.

4.6 French and Sgaw Karen

Bipartite negation in French and Sgaw Karen both involves the AGREE operation binding two or more constituents and outputting to one instance of interpretable negation. The languages differ in a number of respects. French realizes something more like tripartite negation, such that *ne* and *pas* occur also with a silent Neg2^0 imparting negation. In Sgaw Karen, there are only two constituents taking part in the agreement relation, *bə5* and *tə1*.

[18] In Italian, the addition of *mica*, glossed as being at a parallel stage to (46-b) (Hansen and Visconti, 2012) has the effect of marking presuppositional negation (47). I borrow the convention of using the @ symbol to mark presuppositional negation from Zanuttini (1997).

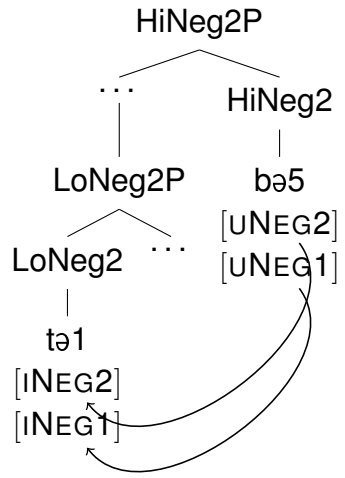
(47) **Non** hanno **mica** gia chiamato, che io sappia. [Italian]
NEG have NEG already called, that I know
'@ They haven't already called, as far as I know.' Zanuttini (1997, p. 62)

The status of Neg2P (HiNeg2P in Sgaw Karen) is different. In French, Neg2^0 is silent, while in Sgaw Karen it is filled by *bə5*. I assume, given the lack of mixed-headedness in French, that Neg2P is head-initial, even though nothing fills Neg2^0, which is different from the head-finality of HiNeg2P in Sgaw Karen.

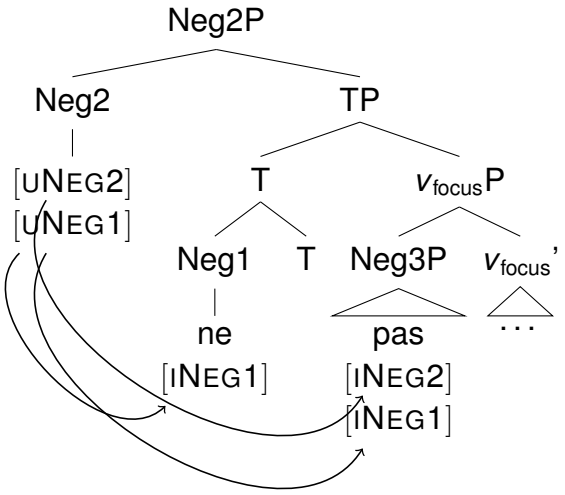
The status of the highest overt constituent in the chain is different in the two languages. In French, *ne* is a hi contrary negator, and in Sgaw Karen, *bə5* is a hi contradictory negator. *Ne* is interpretable for negation, while *bə5* is not. In French, *ne* linearly precedes the structurally lower negator *pas*, while in Sgaw Karen the order is reversed such that the structurally lower *tə5* precedes the structurally higher *bə5*. Both *ne* and *bə5* are optional, but have been argued to be optional for different reasons. In French, the optionality of *ne* is due to the fact that *pas* alone can value Neg2^0, and the addition of *ne* does not add to the semantics of the agreement chain containing *pas* and Neg2^0. In Sgaw Karen, the optionality of *bə5* is due to the fact that it does not have semantic content, and I assume it is there in the syntax, but possibly not at spell out.

Finally, the structurally lowest negators in French and Sgaw Karen differ in status. In French, *pas* is a focus negator, and in Sgaw Karen *tə1* is a contradictory negator. Taken together, French (48) and Sgaw Karen (49) exhibit distinct forms of bipartite negation, although they are related in that the single instance of negation arises from the fact that both constituents are in an agreement chain. (48) is repeated from chapter three.

(48) Bipartite Negation in Sgaw Karen



(49) Bipartite Negation in French



In chapter six, I compare Sgaw Karen and French with Ojibwe, where it is shown that Ojibwe bipartite negation arises from NegP splitting and not syntactic agreement.

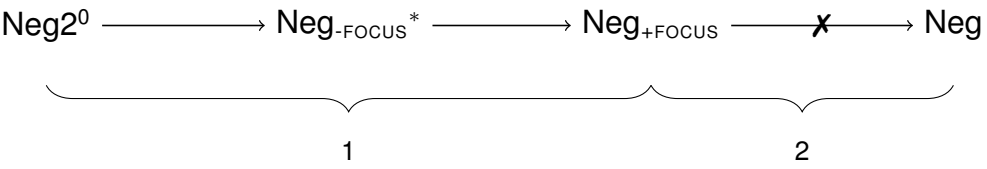
4.7 Negative Tripling and Quadrupling

The analysis here allows more than one constituent interpretable for negation to occur in an agreement chain and output to one instance of logical negation. Under

certain circumstances, I show that two, three, or even four or more constituents interpretable for negation could occur in one agreement chain, specifically with the appearance of multiple negative clitics[19] or multiple n-words. I show that this prediction appears to be correct and discuss instances of negative tripling and quadrupling.

A more precise prediction is that if Neg2^0 is uninterpretable for negation, then it can probe down and get valued by any number of non-focused negative elements before reaching a focus negator (or perhaps a phase boundary, I do not discuss phase boundaries here), resulting in one instance of logical negation. Furthermore, if a negative element appears lower than the focus negator, that negative element, in tandem with the higher chain of negation, outputs to double negation (50). The diagram in (50) is set up such that $\text{Neg}_{\text{-FOCUS}}$ and $\text{Neg}_{\text{+FOCUS}}$ correspond to non-focused and focused negative elements respectively, and a plain Neg stands for any kind of negative element. The kleene star * on $\text{Neg}_{\text{-FOCUS}}$ indicates that any number of non-focused negative elements can occur between Neg2^0 and $\text{Neg}_{\text{+FOCUS}}$, including zero non-focused negative elements. The numbers one and two in (50) below the curly brackets indicate one and two instances of negation respectively.

(50) Multiple Exponence of Negation up to Spec,v_{focus}P



In West Flemish, Haegeman (1995) notes that n-words must occur before the sentential negator *nie* to obtain one instance of logical negation (51-a). If the n-word appears after *nie*, the result is double negation (51-b). I do not discuss the

[19] I assume that whether or not a language permits the multiple exponence of clitics, as shown for dialects of Italian in this section, but not in French, is an idiosyncratic property for that language, and I leave open why languages differ in this manner.

role of *en* here (see Haegeman 2002).

(51) adapted from Haegeman (1995, p. 131)

a. da Valère woarschijnlijk **niemand nie** (en)-kent
that Valère probably nobody NEG *en*-knows'
'that Valère probably does not know anyone'

b. da Valère woarschijnlijk **nie niemand** (en)-kent
that Valère probably NEG nobody *en*-knows
'that Valère probably doesn't know nothing, i.e. Valère knows someone'

If two (52) or three (53) n-words occur in the sentence, and they all appear before *nie*, the result is one instance of logical negation. If one of the n-words occurs after *nie*, the result is double negation (52-b) and (53-b).

(52) adapted from Haegeman (1995, p. 133)

a. da Valère an **niemand niets nie** gezeid (en)-oat
that Valère to nobody nothing NEG said *en*-had
'that Valére had not said anything to anyone.'

b. da Valère an **niemand nie niets** gezeid (en)-oat
that Valère to nobody NEG nothing said *en*-had
'that Valére said nothing to no one' (double negation)

(53) adapted from Haegeman (1995, p. 235)

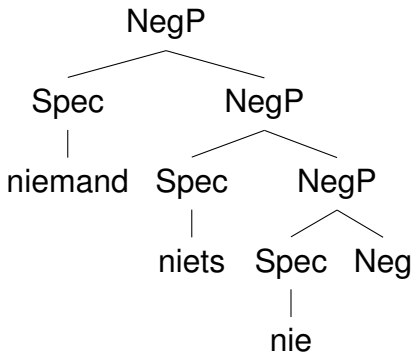
a. da Valère **nooit tegen niemand over niets nie** geklaapt
that Valère never against no one about nothing NEG talked
(en)-eet
en-has
'that Valère never talked about anything to anyone'

b. da Valère **nooit tegen niemand nie over niets** geklaapt
that Valère never against no one NEG about nothing talked
(en)-eet
en-has
'that Valère never talked about nothing to anyone' (double negation)

Haegeman analyzes both n-words and *nie* as having semantic import. She ar-

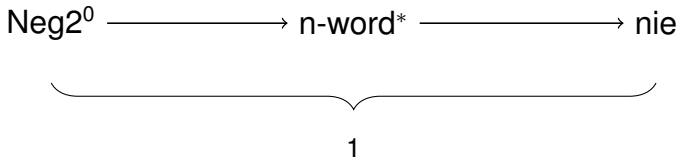
gues that when n-words appear immediately before *nie*, these constituents exist in Spec,NegP, the single NegP resulting in one instance of negation (54). (54) models the combination of n-words and *nie* in (52-a).

(54) adapted from Haegeman (1995)



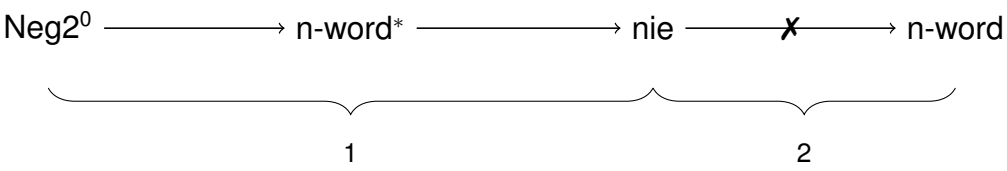
See also Haegeman and Lohndal (2010) for an agreement approach to n-words in West Flemish different from both the analysis here and other aforementioned agreement analyses such as Zeijlstra (2004, 2008). If one n-word appears after *nie*, then the n-word is not in the single NegP and the result is two instances of negation, one NegP and a second interpretable negative element. In the analysis here, it could be argued that sentential negation is marked by a silent Neg2^0, given that *nie* is argued by Haegeman to be an adverb. When n-words appear before *nie*, they appear in an agreement chain with Neg2^0 which stops at *nie* (55). I assume that *nie* is a focus negator, given its XP-status. I abstract away from a proper analysis of West Flemish n-words here, especially with regards to their feature composition, and remain agnostic as to the position to which the n-word moves to. I forego diagramming (55) as a tree to compare it with the schema outlined in (50).

(55) Single Instance of Negation in West Flemish



If even a single n-word appears after *nie*, then the result is double negation (56). This is due to the fact that the n-word cannot appear in the higher agreement chain as it stops at *nie*.

(56) Two Instances of Negation in West Flemish



I set aside a proper analysis of multiple negation in West Flemish here. I point the West Flemish data out to indicate that up to four negators may output to either one or two instances of logical negation, and never three of four. As indicated in Haegeman's research, any framework analyzing multiple instances of negation needs to make sense of this fact, especially with regards to how the syntax of negation results in either the single or double negation reading. The framework makes the prediction that it is due to the fact that the n-words appear between a silent Neg2^0 and a focus negator that causes any number of n-words with *nie* to output to one instance of negation, the double negation reading being the result of one n-word not appearing in the agreement chain.

Manzini and Savoia (2008) note that in dialects of Italian, it is possible for a sentential negator to occur with one (57-a), two (57-b), or three (57-c) negative clitics in tandem with a negative adverb and output to one instance of logical negation. (57-a) is from the dialect of Dego, and (57-b) and (57-c) from the dialect of Càrcare.

(57) adapted from Manzini and Savoia (2008)

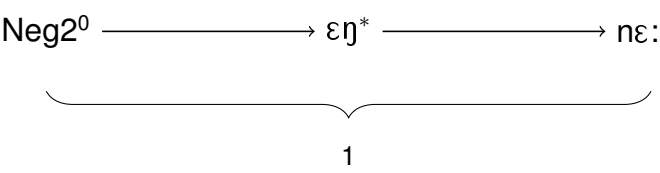
a. u m/t **ɛŋ** li dɒ **nɛ:nt**.
he me/you NEG it gives NEG
'He doesn't give it to me/you.' Dego

b. u **ŋ** s **ɛŋ** lɔva **nɛ:nt**.
he NEG himself NEG washes NEG
'He doesn't wash himself.' Càrcare

c. **ɛŋ** t **ɛŋ** t **ɛŋ** lɔvi **nɛ:nt**.
NEG you NEG yourself NEG wash NEG
'You don't wash yourself.' Càrcare

Manzini & Savoia argue that the clitic negators in (57) are realized to fulfill argument roles. I do not discuss their motivations for their analysis here. It is possible that *nɛ:nt* is a focus negator given its status as an adverb. It is not clear if placing a negative element after *nɛ:nt* results in double negation, or if any of the clitics in (57) are optional. What is interesting about the data in (57) is that, in my framework, it would have to be the case that sentential negation is marked by a silent Neg2^0 uninterpretable for negation, given that none of the overt negators in (57) is a head. It is possible that in (57-a) that the clitic *ɛŋ* is the result of an interpretable Neg2^0 lowering, similar to Sgaw Karen discussed in chapter three, although I assume that this is not the case as this would not predict *nɛ:nt* occurring with *ɛŋ* outputting to one instance of negation. In (57), it appears as though up to three negative clitics can occur between the silent Neg2^0 and *nɛ:nt* and output to one instance of negation due to the fact that the clitics are in an agreement chain with *nɛ:nt*. I use *ɛŋ* in (58) as an exemplar of negative clitics in Italian dialects.

(58) Single Instance of Negation in Italian Dialects



Manzini & Savoia argue that negative clitics and *nɛ:nt* are bound by a silent negative operator high in the clause (they assume unselective binding), similar to the analysis here, modulo the lack of an agreement chain. I point the data out here to show that instances of negative tripling and quadrupling outputting to one instance of logical negation are possible. More importantly, the framework here makes specific predictions for when negative tripling and quadrupling outputs to one instance

of negation, specifically when negative elements occur between an uninterpretable Neg2^0 and up to Spec,v_{focus}P. I assume that constraints on how many negative clitics appear in this configuration are due to grammatical constraints not related to negation, following Manzini and Savoia (2008).

In chapter seven I discuss data from Lewo, a language exhibiting negative tripling, and speculate that this is due to a combination of syntactic agreement and NegP splitting, different from the dialects of Italian discussed in this section. The data will illustrate that there is more than one type of negative tripling, similar to how there is more than one type of negative doubling.

4.8 Conclusion

In this chapter I showed that French exhibits a distinct form of bipartite negation. The main characteristics of French bipartite negation are that (i) sentential negation is marked by a null Neg2^0, (ii) bipartite negation is the result of syntactic agreement, (iii) *ne* is a contrary negator and is optional when *pas* is present as *pas* on its own suffices to value Neg2^0, and (iv) that *pas* (or any number of n-words, I focus on *pas* here) acts as a signal for sentential negation, obligatory because it has the set of interpretable features necessary to value Neg2^0 imparting sentential negation. In the process of arguing for this analysis of French bipartite negation, I offered a new analysis of French n-words to demonstrate how two interpretably negative constituents can output to double negation in certain instances and one instance of negation in others and to motivate a constraint on the AGREE operation. The discussion on n-words is far from complete and is something that I set aside for future work. Furthermore, it was shown that the impetus of re-analyzing *pas* as a focus negator is not so much to 'reinforce' *ne*, but to value a null Neg2^0, as *ne* cannot do so on its own.

So far I have discussed two types of bipartite negation as exemplified by French and Sgaw Karen. Both of these types of bipartite negation invoke the AGREE operation. In the next chapter, I switch gears and analyze the phenomenon of negative polarity emphasis in English in order to motivate some claims for bipartite negation in Ojibwe in chapter six.

Chapter 5

Negative Polarity Emphasis in English

5.1 Introduction

This chapter concerns the phenomenon of negative polarity emphasis in English. Negative polarity emphasis is the phenomenon whereby a speaker targets an antecedent proposition and conveys that the proposition is false with a high degree of certainty (Poletto and Zanuttini, 2013), although I argue later in this chapter that the high degree of certainty is the result of this construction being used specifically to rebut an antecedent proposition rather than the semantics of the construction itself. Negative polarity emphasis, as the term is used in this thesis, necessarily involves bipartite negation. Speaker B's response in (1) is an example of negative polarity emphasis in English.

(1) a. A: John plays hockey.

b. B: **No** he does **not**! / **No** he does**n't**!

The primary focus is on negative polarity emphasis in English, although I note

that the same phenomenon is found in other languages, including Italian, French, Catalan, and Ojibwe, and I make reference to these languages in this chapter.

This chapter is something of a detour from the main goal of this thesis, accounting for how two negative constituents in tandem realize one instance of logical negation without imparting any added semantic effect (canonical bipartite negation). I analyze negative polarity emphasis constructions in English as I argue in the next chapter that Ojibwe realizes bipartite negation parallel to negative polarity emphasis constructions in English and other languages, with some noted differences. Thus, the information in this chapter acts as a gateway to my analysis of bipartite negation in Ojibwe, and this is the primary reason why I devote an entire chapter to negative polarity emphasis in English.

I discuss not only negative polarity emphasis, but also the role of the hi focus negator *no* in negative responses, which I argue realize elided negative polarity emphasis, similar to Laka (1990). I argue that *no* has the same semantic import in all instances, and I import my analysis of *no* in English to the hi focus negator *gaawiin* in Ojibwe in the next chapter.

The framework I posit also makes important predictions for polar-based and truth-based answering systems as discussed in Holmberg (2016). In English (2) and Italian (3), a negative response indicates agreement with the negativity of the antecedent proposition, equivalent to stating 'no, it is not the case that . . . ' (Holmberg, 2016). In other languages, such as Taiwanese (4), a negative response indicates that the prejacent of the negative antecedent is actually true (Wu, 2016). Following Holmberg (2016) and references cited therein, English (2) and Italian (3) are examples of the polar-based and Taiwanese (4) of the truth-based system of answering respectively, the terms referring to the fact that the negative response signals the negative polarity of the clause in the former system, and that the negative response in the latter system indicates that the negative antecedent proposition

is false.

(2) A: Did John not go to the store? p = 'John went to the store'

B: **No** = $\neg p$ (John didn't go to the store)

(3) [Italian] adapted from Andorno and Rosi (2015, p. 106)

a. A: Non stai bene?

Are you not feeling well? p = 'You are feeling well'

b. B: **No** = $\neg p$ (Speaker B is not feeling well)

(4) [Taiwanese] adapted from Holmberg and Wu (2018, p. 1)

a. Lauong bô lim ka-pi nih?
Lauong not drink coffee Q
'Doesn't Lauong drink coffee?' p = 'Lauong drinks coffee'

b. **m-si**, i u (lim ka-pi)
no he have drink coffee
m-si = p (Lauong drinks coffee)

In §5.5 I argue that polar-based and truth-based answering systems differ in terms of whether or not the language permits NegP splitting, and I show how this difference captures why polar-based answering systems allow for the negative response particle to be uttered in isolation (2) and (3), whereas this is not the case with the truth-based answering system (4) (see Wu 2016, Holmberg and Wu 2018).

The primary question to resolve in this chapter is the following: How do the two negators in negative polarity emphasis in English, with the intent of extending this analysis to other languages, impart one instance of logical negation when realized in tandem? I argue that hi focus negators are related to the structurally lower negator by means of NegP splitting, this operation defined in chapters one and two and expounded upon in §5.4. The source of how two negators output to one instance of logical negation in negative polarity emphasis constructions is different from canonical bipartite negation in Sgaw Karen and French, which was argued

in chapters three and four respectively to derive from probe-goal agreement. I argue against hypothetical agreement and movement accounts of negative polarity emphasis in §5.4.1.

This chapter is organized as follows. In §5.2 I discuss the role of hi focus negators in negative polarity emphasis constructions and in negative responses. I lay out some preliminary arguments that negative responses realize elided negative polarity emphasis, and I highlight why this analysis is important for understanding the semantic contribution of the hi focus negator. I use this section to also discuss hi focus negators and their use in negative polarity reversal and in contrastive negation, these two phenomena discussed in Kramer and Rawlins (2010). I highlight these additional uses of *no* to buttress the analysis in this chapter and to foreshadow the uses of the hi focus negator *gaawiin* in Ojibwe in chapter six. In §5.3 I discuss some previous approaches to analyzing both negative polarity emphasis and negative responses, keeping the discussion on these two phenomena separate as scholars typically analyze these constructions separately. In §5.4 I offer an analysis of negative polarity emphasis as NegP splitting. I argue that negative responses are elided negative polarity emphasis constructions and adopt aspects of ellipsis approaches to negative responses in frameworks such as Kramer and Rawlins (2009, 2010) and Holmberg (2016) while providing a critique of the aforementioned frameworks. In §5.5 I discuss some theoretical predictions that my analysis makes regarding the polar- and truth-based systems of answering discussed in Holmberg (2016). §5.6 concludes the chapter.

5.2 The Functions of *no*

I discuss here the syntax and semantics of the hi focus negator *no* in English. I argue that in all instances of *no* discussed here *no* contributes to the negation of

an antecedent constituent, be it a proposition or sub-propositional constituent.

5.2.1 Negative Polarity Emphasis

I discuss here the diagnostics for negative polarity emphasis as discussed in chapter two. First, the hi focus negator used with negative polarity emphasis is also used to mark a negative response (5).

(5) a. A: Did John go to the store?
B: **No** = $\neg p$ (John didn't go to the store)

Second, as noted in Poletto and Zanuttini (2013) for Italian, extended to English here, negative polarity emphasis resists embedding. (6) is repeated from chapter two.

(6) *If **no** it does**n't** rain, you must water the flowers.

Third, and also noted in Poletto and Zanuttini (2013) for Italian, extended to English here, lexical material not in the antecedent proposition being reacted to cannot be added to the negative polarity emphasis construction (7-b). (7) is repeated from chapter two.

(7) A: John$_i$ plays hockey.
a. B: **No** he$_i$ does**n't** (play hockey)!
b. B: ***No** he$_i$ does**n't** play hockey in Canada!

I expand on this diagnostic here. I assume that negative polarity emphasis constructions must be syntactically identical, modulo the restrictions laid out in Merchant (2001)[1], to the antecedent proposition, minus the negative elements (a sim-

[1]The following identity conditions on licensing ellipsis are taken from Merchant (2001) and cited in Holmberg and Wu (2018, p. 5):

(8) a. A constituent α can be deleted only if α is e-given.

ilar point is made in Holmberg 2016, but specifically for negative responses). The prejacent of (7-a) is identical to the antecedent being reacted to 'John plays hockey (9),' modulo 'John' being replaced by 'he' and the presence of negation.

(9)

[$_{\text{FinP}}$ John$_{\text{i}}$ [$_{\text{TP}}$ [$_{v\text{P}}$ plays hockey]]]

[$_{\text{FinP}}$ He$_{\text{i}}$ [$_{\text{Neg2P}}$ [$_{\text{Neg2}}$] [$_{\text{TP}}$ does [$_{v_{\text{focus}}\text{P}}$ not ~~does~~ [$_{v\text{P}}$ play hockey]]]]]

Adding the PP 'in Canada' in (9) results in an illicit derivation, as 'in Canada' is not present in the antecedent.

Following Poletto and Zanuttini (2013), I assert that the main function of negative polarity emphasis is to deny or contradict a previous proposition (see also Farkas 2009, 2010). I assert that the constituent marking that negation targets an antecedent is the hi focus negator and not the structurally lower negator *not* in English. *Not*, in signaling sentential negation, is not required to target an antecedent proposition. For example, an individual walking down the street can utter (10-a) after realizing that he/she has not locked the door, unlike (10-b), similar to an example given in chapter two. (10) models negation used in an out-of-the-blue scenario.

(10) a. I did **not** lock the door!

b. #**No** I did **not** lock the door!

b. An expression E counts as e-given iff E has a salient antecedent A and, modulo $\exists$-typeshifting, (i) A entails the F(ocus)-closure of E and (ii) E entails the F-closure of A.

c. The F-closure of α is the result of replacing F-marked parts of α with A-bar bound variables of the appropriate type (modulo $\exists$-type shifting).

d. $\exists$-type shifting is a type-shifting operation that raises expressions to type $<$t$>$ and existentially binds unfilled arguments.

I adopt Merchant's analysis of ellipsis here, although I note that I do not get into fine detail in terms of the isomorphism between an elided clause and its antecedent as this information goes beyond the scope of information covered in this chapter.

The infelicity of uttering (10-b) is due to the fact that there is no antecedent to target in the out-of-the-blue scenario.

5.2.2 Negative Response Particle

Negative responses consist specifically of a hi focus negator uttered in isolation or possibly with a pause and added clausal material with a comma indicating the pause in writing (11-b). The pause/comma distinguishes a negative response (11-b) from a negative polarity emphasis construction (11-a) (Poletto and Zanuttini, 2013).

(11) a. **No** I do**n't**! NEGATIVE POLARITY EMPHASIS

b. **No**, I do**n't**. NEGATIVE RESPONSE

An important aspect of the syntax of negative responses discussed by Laka (1990) is that clausal material before the pause/comma must match clausal material in the antecedent proposition being reacted to (12). Material after the pause/comma does not have to. (12) is similar to an example in Laka (1990, p. 159).

(12) Did you all$_i$ go to store?

a. No, we$_i$ went to the cinema.

b. No we didn't, we$_i$ went to the cinema.

c. No we didn't go to the store, we$_i$ went to the cinema.

d. *No we didn't go to the store yesterday, we$_i$ went to the cinema.

Two things are of note here. First, the aforementioned restriction on clausal material before the pause/comma is the same as the restriction on clausal material discussed for negative polarity emphasis constructions. In fact, in (12-b) and (12-c), the material before the pause/comma is equivalent to a negative polarity emphasis construction, as it realizes tautoclausal *no* and *not*. This is not a coincidence: I

argue that negative responses involve an elided negative polarity emphasis construction, with possible clausal material realized after the pause/comma. I follow Laka (1990) in arguing that material after the pause/comma is an 'amplification' of material preceding the pause/comma, essentially adding to the information conveyed by the rejection of the antecedent proposition. A negative response is really just a negative polarity emphasis construction plus a possible second clause (13).

(13) A: Do you like pizza?

B: No ~~I don't~~, I like ice cream.

[$_{CP}$ No ~~I don't~~] , [$_{CP}$ I like ice cream]

Negative Polarity Emphasis

Negative Response

Although Laka (1990) does not employ the term negative polarity emphasis in her analysis, the analysis I give is for the most part identical to hers, specifically with regards to negative responses being biclausal when a pause/comma is realized, and that material before the pause/comma is a negated and elided version of the antecedent being reacted to. This framework and Laka's differ in terms of the clausal architecture of negation, although I do not comment on this matter further as it goes beyond the scope of discussion.

Under this analysis, where *no* as a negative response heads an elided clause realizing a negative polarity emphasis construction, the spell out of elided material before the pause/comma in sentences such as (13-a) comes out to the redundant sounding (14-b).

(14) A: Does John like hockey?

a. B: No, he doesn't.

b. B: #No he doesn't, he doesn't.

One might object to the analysis that I and similarly Laka give to negative response particles here for the proposed awkwardness in (14-b). However, there is strong reason to believe that hi focus negators, when uttered in isolation, involve elided negative polarity emphasis based on facts related to *no* and its use in either agreeing with or reversing the polarity of the antecedent proposition, to be discussed in this and forthcoming sections.

The basic difference between negative polarity emphasis and negative responses is that in the former construction the two overt negators are tautoclausal (15) and in the latter construction, specifically when the hi focus negator is uttered alone before a pause/comma, the two overt negators are biclausal (16). Note that in negative responses where the hi focus negator is uttered alone there is a downstairs negator in the elided clause, as will be argued for more extensively in §5.4.

(15) Negative Polarity Emphasis

[$_{CP}$ **No** he does**n't**]

(16) Negative Responses

[$_{CP}$ **No** ~~he does**n't**~~], [$_{CP}$ he does**n't**]

Two things are of importance here. First, in negative responses where the hi focus negator is uttered in isolation before the pause/comma, the overt instances of *no* and *not*/*n't* are in separate clauses, and thus each clause constitutes a separate instance of negation. The two overt negators do not constitute bipartite negation, as the phenomenon discussed here only covers tautoclausal negation. Of course, for the material before the pause/comma, the hi focus negator and the downstairs negator output to one instance of logical negation, and thus constitute bipartite negation. The import point here is that a second negation after a pause/comma constitutes negation in a separate clause. Second, that negative responses involve

a typically elided negative polarity emphasis construction provides an explanation for why hi focus negators are used in both negative polarity emphasis and negative responses. The reason is that negative responses are just negative polarity emphasis constructions that are elided. Negative responses and negative polarity emphasis are the same thing, the only difference being that negative responses permit a pause/comma with an extra clause providing an amplification of the rejection/denial of the preceding clause. This point echoes discussion in Laka (1990).

As was mentioned previously, languages differ in terms of the syntax and semantics of negative responses when the antecedent is negative. English (17) and Italian (18) are examples of the polar-based system of answering, where a negative response indicates agreement with the negativity of the antecedent proposition. Taiwanese is an example of the truth-based system of answering, where a negative response indicates that the prejacent of the negative antecedent is true (19) (Wu, 2016). (2)-(4) are repeated in (17)-(19).

(17) A: Did John not go to the store? p = 'John went to the store'

B: **No** = $\neg p$ (John didn't go to the store)

(18) [Italian] adapted from Andorno and Rosi (2015, p. 106)

a. A: Non stai bene?

Are you not feeling well? p = 'You are feeling well'

b. B: **No** = $\neg p$ (Speaker B is not feeling well)

(19) [Taiwanese] adapted from Holmberg and Wu (2018, p. 1)

a. Lauong bô lim ka-pi nih?
Lauong not drink coffee Q
'Doesn't Lauong drink coffee?' p = 'Lauong drinks coffee'

b. **m-si**, i u (lim ka-pi)
no he have drink coffee
m-si = p (Lauong drinks coffee)

Note that English and Italian realize negative polarity emphasis and the polar-based system of answering questions. In §5.5.1 I argue that languages that realize negative polarity emphasis, recalling the fact that negative polarity emphasis as it is used here necessarily entails bipartite negation, conform to the polar-based system of answering, and in §5.5.2 I make the prediction that languages conforming to the truth-based system of answering do not exhibit negative polarity emphasis.

5.2.3 Other Functions of *no*

Recall from chapter two that contrastive negation constructions involve negation of an antecedent constituent and serve as a correction of a previously mentioned utterance. Contrastive negation in English realizes the 'not X, but Y' construction (20).

(20) **not** John, but Bill

Contrastive negation has been primarily argued heretofore to be the function of lo focus negators. For example, in (20), *not* is used instead of *no*, a hi focus negator, to mark contrastive negation. As noted in Kramer and Rawlins (2010), hi focus negators (equivalent to negative polarity particles in their terms) can also be used contrastively, in the sense that hi focus negators can target and correct antecedent sub-propositional constituents (21). (21) is similar to an example in Kramer and Rawlins (2010, p. 12).

(21) A: John doesn't play hockey.
B: No, BILL doesn't (play hockey).

Two things are of note here. First, the hi focus negator *no* is used contrastively instead of the lo focus negator as *not*/*n't* is being used here to signal sentential negation. When it is used to signal sentential negation, *not*/*n't* cannot be used

contrastively, in the sense that *not*/*n't* cannot perform two separate functions at once. Second, if the material before the pause/comma in (21) is analyzed as an elided construction, then the material before the pause is ineffable (meaning it cannot be pronounced) (22), a point made in Kramer and Rawlins (2010)

(22) A: John doesn't play hockey.
B: *No JOHN doesn't play hockey, BILL doesn't (play hockey).

I follow Kramer and Rawlins (2010) in analyzing the response in (21) as realizing elided structure before the pause/comma and speculate on the ineffability of contrastive negation with *no* in §5.4.2.

As was mentioned previously, the hi focus negator in English (23) and Italian (24), in response to a negative antecedent, can agree with the negative polarity of the previous assertion. (2) is repeated in (23).

(23) A: Did John not go to the store? p = 'John went to the store'
B: **No** = $\neg p$ (John didn't go to the store)

It is possible to use hi focus negators to reverse the polarity of an antecedent proposition (24), as noted in Kramer and Rawlins (2009, 2010) and Holmberg (2016). I refer to these constructions as negative polarity reversal constructions.

(24) A: John does not play hockey.
B: **No**, he DOES (play hockey)

These constructions require, in a similar manner to hi focus negators being used contrastively, a second (contrastive) clause, in this instance the contrastive focus denotes the positive polarity of the proposition that the speaker is asserting (Kramer and Rawlins, 2010). Similar to *no* being used contrastively, negative polarity reversal requires that the material before the pause/comma be ineffable (25), a point made in Kramer and Rawlins (2010).

(25) A: John does not play hockey.

B: ***No** he does NOT play hockey, he DOES play hockey.

I argue for an analysis of negative polarity reversal in §5.4.2, and show, in a similar manner to Kramer and Rawlins (2010), that negative polarity reversal is really a form of contrastive negation targeting specifically the polarity of the antecedent clause, although my analysis and the analysis of Kramer and Rawlins (2010) differ in execution.

5.2.4 Summary

In this section I showed that the hi focus negator *no* in English plays a role in negative polarity emphasis, negative responses, contrastive negation, and polarity reversal contexts. That hi focus negators are used in the first two constructions was derived from the fact that negative responses are really just elided negative polarity emphasis constructions with a possible second clause of added lexical material. I argued here, and I argue further in §5.4.2, that contrastive negation and negative polarity reversal with *no* are both instances of *no* targeting a sub-propositional constituent, be it an R-expression or polarity value, similar to arguments put forth in Kramer and Rawlins (2010).

5.3 Previous Approaches

This section discusses previous approaches to negative polarity emphasis §5.3.1 and negative responses §5.3.2. I discuss Kramer and Rawlins (2010) and their analysis of contrastive negation with *no* and negative polarity reversal in §5.4.1, delaying discussion until then as their analysis relates to the discussion in that section. I discuss negative polarity emphasis and negative responses separately

as scholars typically treat these phenomena as distinct.

5.3.1 Previous Approaches to Negative Polarity Emphasis

I discuss a non-exhaustive overview of accounts of negative polarity emphasis, focusing on two important analyses that most inform my own analysis of the phenomenon. The first analysis I discuss is Poletto and Zanuttini (2013). Their focus is on Italian negative polarity emphasis, although their analysis can be extended to English. I discuss their analysis as the diagnostics they posit inform the discussion here. I highlight some restrictions they show on focused constituents co-occurring with hi focus negators in Italian as I discuss similar restrictions in English.

In Italian, two negators, the hi focus negator *no* and the hi contradictory negator *non*, work in tandem to impart negative polarity emphasis (26-b).

(26) [Italian] adapted from (Poletto and Zanuttini, 2013, p. 127)

a. A: È arrivato in ritardo alla riunione, come sempre.
is arrived in delay to-the meeting as always
'He arrived late to the meeting, as always'

b. B: **No** che **non** è arrivato in ritardo!
NEG that NEG is arrived in delay
'He DID NOT arrive late!'

Poletto and Zanuttini (2013) motivate a biclausal analysis of negative polarity emphasis. *No* is base-generated above the clause containing *non*, both constituents being realized in Pol(arity)Ps in different clauses. *No* binds a null operator originating in the downstairs PolP that has moved to Spec,ForceP. The lower PolP is internally merged in a Hanging Topic Phrase (HTP, more on what this means in a bit) in the upstairs clause, and the HTP is elided.

(27) adapted from Poletto and Zanuttini (2013, p. 125)

$[_{HTP}$ [~~non è arrivato~~] $[_{ForceP} \ldots [_{PolP}$ no_i $[_{TP} \ldots [_{ForceP}$ OP_i $[_{Force}$ che $[_{PolP}$ e_i non è arrivato]]]]]]]

Their motivations for the arrangement in (27) are as follows. First, the complementizer *che* is realized with Italian negative polarity emphasis. Following standard assumptions of Italian syntax, Poletto & Zanuttini argue that *che* is realized in the head of ForceP. This means that *no* must be located either in Spec,ForceP, or, since ForceP delimits the highest projection in a finely-articulated CP, in a higher clause. Poletto & Zanuttini give evidence that *che* must be in ForceP based on the interaction of negative polarity emphasis and clitic left dislocation constructions, not discussed here. Poletto & Zanuttini determine that *no* must be realized in a higher clause based on a restriction in Italian barring negative constituents occurring before the sentential negator *non*. When an n-word precedes the position where *non* would normally surface (in the TP domain), *non* is prohibited from occurring. (28-a) forms a minimal pair with (28-b).

(28) adapted from Poletto and Zanuttini (2013, p. 132)

a. **Non** ha mangiato **niente**.
NEG has eaten nothing
'He didn't eat anything.'

b. **NIENTE** (***non**) ha mangiato, neanche un pezzo di pane.
nothing NEG has eaten, not-even a piece of bread
'She ate NOTHING, not even a piece of bread.'

It follows that if negative constituents are prohibited from occurring before a tautoclausal *non*, then *no* is realized in a different clause. Although note that Poletto & Zanuttini only give examples of n-words, so it is possible that there is a ban specifically on n-words and not necessarily negative elements in toto appearing before sentential negation in the same clause. This hypothetical analysis opens the door to *no* being tautoclausal with *non*.

The single instance of negation arises from the fact that *no* binds the operator that is base-generated in Spec,PolP and moves to Spec,ForceP. This results in a single chain responsible for the one instance of interpretable negation. That the operator moves to Spec,ForceP is motivated on the basis that operator movement blocks focus fronting in negative polarity emphasis constructions. The argument *Avatar* is focused in (29).

(29) *AVATAR **no** che **non** abbiamo ancora visto.
Avatar no that NEG have yet seen
'No we haven't seen AVATAR yet!'

adapted from Poletto and Zanuttini (2013, p. 136), translation my own

Moving an argument to FocusP creates a minimality effect blocking the operator from moving to Spec,ForceP (see Poletto and Zanuttini 2013 for more discussion on how this works).

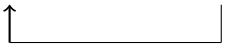
(30) adapted from Poletto and Zanuttini (2013, p. 136)

$no_i \ldots [_{ForceP}\ OP_i\ [_{Force}\ che\ [_{TopicP}\ [_{FocusP}\ Avatar_j\ [_{PolP}\ e_i\ [_{Pol}\ non\ [_{TP}\ \ldots e_j\ ]\ ]\ ]\ ]\ ]\ ]\ ]$

Finally, recall that negative polarity emphasis realizes an elided hanging topic phrase. (27) is repeated in (31).

(31) adapted from Poletto and Zanuttini (2013, p. 125)

$[_{HTP}\ [\sout{non è arrivato}]\ [_{ForceP}\ \ldots [_{PolP}\ no_i\ [_{TP}\ \ldots [_{ForceP}\ OP_i\ [_{Force}\ che\ [_{PolP}\ e_i\ non\ è\ arrivato\ ]]]]]]]$



Two reasons are given for the elided hanging topic phrase. First, recalling previous discussion, polarity emphasis constructions (both positive and negative) resist

embedding[2]. Following the analyses of Benincà (1988) and Benincà and Poletto (2004), this follows if clauses containing a hanging topic phrase cannot be embedded[3]. Second, given that the hanging topic phrase is elided, at least for the Italian examples given thus far, it follows that the hanging topic phrase can optionally spell out. Poletto & Zanuttini show that this is possible.

(33) **Non** è arrivato, **no** che **non** è arrivato.
NEG is arrived no che NEG is arrived
'Of course he hasn't arrived!' Poletto and Zanuttini (2013, p. 140)

A number of other reasons are given in Poletto and Zanuttini (2013) for the analysis they adopt, most of which are not pertinent to the discussion here, so I do not discuss them. I refer the reader to Poletto and Zanuttini (2013) for more details.

I discuss the analysis of positive polarity emphasis in Hernanz (2006) and articulated further in Batllori and Hernanz (2011). Their analysis is focused on positive polarity emphasis specifically in Catalan and Spanish, although their framework can be imported into discussing negative polarity emphasis (they discuss negative polarity emphasis briefly). I discuss this line of work as their analysis informs my own, especially with regards to explaining the lack of embedding with polarity emphasis constructions (both positive and negative), and how specifically sentential polarity is marked with polarity emphasis.

In Spanish, *sì* (equivalent in meaning to 'yes') marks positive polarity emphasis (34), whereby the speaker is indicating with a high degree of certainty that an antecedent proposition being reacted to is true.

[2]Poletto & Zanuttini do not give any examples of negative polarity emphasis constructions resisting embedding, although they give the following positive polarity emphasis construction resisting embedding (32).

(32) *Credo che/di sì che viene.
believe that/of yes that comes
Intended: 'I believe he will so come.' adapted from Poletto and Zanuttini (2013, p. 138)

[3]I refer the reader to Benincà (1988) and Benincà and Poletto (2004) for more information as the details of this analysis are not discussed in depth in Poletto and Zanuttini (2013).

(34) **Sì** ha cantado la soprano.
yes has sung the soprano
'The soprano HAS sung.' Batllori and Hernanz (2011, p. 2)

Batllori and Hernanz argue that positive polarity particles undergo Spec,PolP to Spec,FocP movement as in (35).

(35) $[_{CP} \ldots [_{FocusP}$ sì$_i$ $[_{PolP}$ t_i $[_{IP} \ldots]]]]$

adapted from Batllori and Hernanz (2011, p. 19)

The movement is motivated by the fact that these constituents mark the positive polarity of the sentence and serve as emphatic markers that merge with a presupposed complement. Base-merging the constituent in PolP marks the positive polarity of the clause and subsequent movement to Spec,FocusP derives the emphatic and presuppositional qualities of the positve polarity particle. Batllori and Hernanz (2011) give a number of arguments for movement to FocusP, namely that positive polarity markers appear in complementary distribution with constituents appearing in Spec,FocusP (such as wh-elements), similar to the aforementioned data in Italian (see (29)).

My analysis of negative polarity emphasis is similar to the analysis of Batllori and Hernanz (2011) outlined in (35). The difference here is that I do not assume movement, but rather NegP splitting, deriving the fact that both Spec,C_{focus}P and Neg2P are filled by different constituents. I argue against a hypothetical movement account of negative polarity emphasis in §5.4.1 based on discussion in chapter two. The important takeaway is that my analysis and theirs both share the idea that polarity is marked by having a distinct projection (PolP in their framework, Neg2P in mine), and that polarity emphasis is interpreted at Spec,FocusP (Spec,C_{focus}P here). Their analysis also assumes a single PolP that can house either negative or positive polarity, an analysis I reject in §5.4.2.

The analysis of Hernanz (2006) derives why polarity particles (the focus is on

positive polarity particles, but this analysis can be imported to negative polarity particles/hi focus negators) cannot be embedded. The positive polarity particle *bien* in Spanish (parallel in meaning to *sì*, although with a slightly different meaning) cannot be embedded (36)[4].

(36) adapted from Hernanz (2006, p. 129)

a. Le aconsejaron que (*__bien__) fumara.
they advised that well to smoke
'They advised him to smoke.'

b. Lamento que (*__bien__) sean ricos.
I regret that well are rich
'I regret that they are rich.'

c. Es necesario (*__bien__) decir la verdad.
it is necessary well to tell the truth
'It is necessary to tell the truth.'

Hernanz argues that positive polarity particles occupy Spec,FocusP and argues, following Haegeman (2003), that embedded clauses lack this projection given that focused constituents do not appear in the left periphery of most embedded clauses (specifically those that lack what is termed main clause phenomena (Hooper and Thompson, 1973), see discussion in chapter six). Positive polarity particles cannot be embedded because the position hosting them is not present in embedded clauses. I adopt this analysis and argue that this analysis can be imported to deriving why the hi focus negator *gaawiin* in Ojibwe cannot be embedded in chapter six.

I discuss some further aspect of the analysis of Hernanz (2006) and Batllori and Hernanz (2011) regarding negative polarity emphasis in Catalan and Spanish in §5.5.1 and delay discussion until then as this information does not immediately inform my analysis in §5.4.

[4]The translations in (36) are my own.

5.3.2 Previous Approaches to Negative Responses

Analyses of the syntax of responses, with the focus here being on negative responses, is divided roughly into two camps. One analysis treats polarity particles like *yes* and *no* as propositional anaphors, fragments that do not take elided sentences as their complements. I henceforth refer to this as the propositional anaphor approach. A second analysis treats polarity particles as heading sentences with elided structure when the polarity particle is uttered in isolation. I henceforth refer to this as the ellipsis approach. I discuss each approach in tandem, noting that I side with the latter analysis, as alluded to in §5.2, and give more evidence for this approach in §5.5.

The propositional anaphor approach takes polarity particles, here focusing on negative polarity particles (hi focus negators) and specifically English examples, to be anaphoric elements and are uttered as fragments. This means that the response of *no* in (37) has no structure beyond being an adverbial phrase (38).

(37) a. Are you coming? (p = 'you$_i$ are coming')

b. No. ($\neg p$ = 'I$_i$ am not coming')

(38) NegP

no

A key takeaway here is that, in this approach, *no* in English does not head a sentence with elided structure in negative responses. See Barton (1990), Stainton (1993), and Krifka (2013) for examples of this approach. I focus on the latter approach here, given the recency of this analysis.

Krifka (2013), arguing in favor of this approach, argues that polarity particles, when used in response to negative questions[5] and assertions, are ambiguous be-

[5]Specifically negative questions that do not introduce a positive bias, such as 'Didn't John go there?' See discussion in Reese (2007) for positively-biased questions of this kind.

tween positive and negative readings (40).

(39) adapted from Krifka (2013, p. 2)

a. A: You stole the cookie. B: *Yes*. (=B did steal the cookie)

b. A: Did you steal the cookie? B: *No*. (=B didn't steal the cookie)

(40) adapted from Krifka (2013, p. 2)

a. A: You did not steal the cookie. B: *Yes.* B: *Yes, I didn't.* / *Yes, I did.*

b. A: Did you not steal the cookie? B: *No.* B: *No, I didn't.* / *No, I did.*

Krifka explains the apparent ambiguity in (40) by reference to the fact that polarity particles, as anaphors, can refer back to either a NegP projecting above TP or the positive TP under negation. (41) is adapted from discussion in Krifka (2013).

(41) Q: *Did you not steal the cookie?* (antecedent *p* = 'you did not steal the cookie')

Structure of antecedent *p* = [$_{\text{NegP}}$ you not [$_{\text{TP}}$ ~~you~~ steal the cookie]]

By uttering *no*, the speaker can refer to either NegP or TP. If *no* refers to NegP, the negativity of *no* cancels out the negation introduced in NegP and yields a positive result. If *no* refers to TP, the negation modifies the positive TP and the result is negative.

Krifka relates the behavior of polarity particles to other anaphors used in response to negative assertions. For example, *that* in (42) can refer to either the negative or positive prejacent of the proposition.

(42) adapted from Krifka (2013, p. 5)

Two plus two isn't five. [$_{\text{NegP}}$ two plus two isn't [$_{\text{TP}}$ ~~two plus two~~ ~~is~~ five]]

a. Everyone knows **that**.

(**that** refers to NegP, where NegP = 'two plus two isn't five')

b. **That** would be a contradiction.

(**that** refers to TP, where TP = 'two plus two is five')

Krifka argues that if anaphors like *that* can refer back to different levels of phrase structure in the antecedent clause, then this account can be extended to polarity particles yielding the ambiguity in (40), thus explaining the ambiguity that arises when polarity particles modify an antecedent clause containing negation.

There are at least two drawbacks to Krifka's account. First, the judgments that Krifka gives for responses to negative questions are not universally held. (40) is repeated in (43).

(43) adapted from Krifka (2013, p. 2)

a. A: You did not steal the cookie. B: *Yes.* B: *Yes, I didn't.* / *Yes, I did.*

b. A: Did you not steal the cookie? B: *No.* B: *No, I didn't.* / *No, I did.*

Used specifically in isolation, Kramer and Rawlins (2009) give the judgments that *yes* and *no* mark only the negativity of the prejacent proposition. Holmberg (2016) gives similar judgments and introduces data that many speakers of English reject *yes* in isolation to negative questions. If *yes* is used at all, it must be continued by extra lexical material[6]. Kramer and Rawlins (2009) discuss something similar with *no*. *No*, when used to reverse the polarity of a negative question, involves spelling out extra lexical material, noting the emphasis on *did* in (44).

(44) A: Did Alfonso not go to the party?

B: No, he DID go Kramer and Rawlins (2009, p. 9)

As Krifka's analysis of polarity particles denoting propositional anaphors crucially relies on the ambiguity of *yes* and *no* in response to negative questions, the fact that not all speakers share his judgments calls into question an analysis whereby

[6] An example of this would be 'Yes, I did.'

these constituents, when uttered in isolation, may refer back to different levels of clausal structure in the antecedent proposition.

A second objection to Krifka's analysis is due to the fact that there is substantial cross-linguistic evidence that response particles head elided clauses, the evidence for which I now turn to.

The ellipsis approach to negative responses is argued for in Kramer and Rawlins (2009, 2010), Holmberg (2016), Holmberg and Wu (2018), and Wu (2016), among others. I focus first on the framework of Holmberg (2016) and the evidence he gives for the ellipsis approach. Holmberg notes that some languages employ a verb-echo construction in response to questions rather than or in addition to the usage of polarity particles, this construction discussed for Sgaw Karen in chapter three (the data for Sgaw Karen not repeated here). One such language exemplifying the verb-echo construction is Finnish[7].

(45) Verb-echo response in Finnish (Holmberg, 2016)

a. Tul-i-vat-ko lapset kotiin?
come-PST-3PL-Q children home
'Did the children come home?'

b. Tul-i-vat.
come-PST-3PL
'Yes.'

Holmberg argues that the syntax of verb-echo responses, which are not uncommon cross-linguistically, and the syntax of polarity particles used in isolation can be given a similar treatment if they both involve ellipsis. In Holmberg's framework, either a polarity particle is merged in Spec,FocusP or the verb is moved to Spec,FocusP (sometimes involving initial remnant movement to projections beneath FocusP not discussed here) followed by ellipsis licensed by an [E] feature on

[7] I use data here from Finnish as the fact that the verb is inflected when uttered in isolation signals that the controller of agreement must be present in the elided structure, similar to arguments made in Merchant (2004) for inflected fragment answers in general.

Focus^0. (46) models the answer in (45-b).

(46) [$_{\text{FocusP}}$ Tulivat [E] [$_{\text{TP}}$ ~~lapset tulivat kotiin~~]]

adapted from Holmberg (2016)

(47) Q: Did you$_i$ go to the store?

A: [$_{\text{Focus}}$ Yes [E] [$_{\text{TP}}$ ~~I$_i$ went to the store~~]]

Further evidence that response particles involve ellipsis is that in some languages the response particle is inflected, indicating that it has undergone agreement with an elided constituent, as is the case in some dialects of Dutch (van Craenenbroeck, 2004) and West Flemish (48) (Haegeman and Weir, 2015)[8].

(48) [West Flemish (Lapscheure dialect)]

a. Een-k tyd?
Have-I time
'Do I have the time?'

b. **Nee**-g
No-you
'No' adapted from Haegeman and Weir (2015, p. 1)

As pointed out by Laka (1990), and discussed in Kramer and Rawlins (2009), Kramer and Rawlins (2010), and Holmberg (2016)[9], material in the elided structure can be spelled out, indicating that structure is present in (49-a) and (49-b) but not spelled out.

(49) A: Did you go?

a. B: No.

b. B: No I didn't.

c. B: No I didn't go.

[8]Kramer and Rawlins (2009) briefly make a similar point for the syntax of inflected negative responses.

[9]For Holmberg and Kramer & Rawlins there is a comma between *no* and the following material.

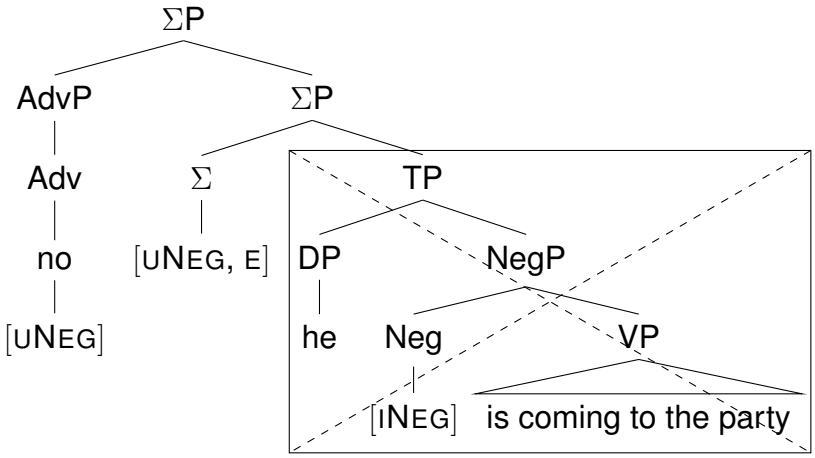
Given the compelling evidence, I adopt the ellipsis account of polarity particles, focusing on negative polarity particles (hi focus negators). I outline in §5.4 some issues with the existing analyses and offer my own solutions to these issues.

Probing further into the ellipsis analysis of negative response particles, it is necessary to discuss how polarity is assigned to the elided clauses they modify. The exact mechanism differs depending on the analysis. In Kramer and Rawlins (2009), agreement takes place among a negative polarity particle, the head of ΣP (equivalent to PolP), and a NegP hosting the sentential negator *not* in English (or alternatively being null in a positive sentence). *No* is endowed with [uNEG] and must occur in an agreement relationship with a lower constituent bearing [iNEG]. This can either be the constituent *not*, here focusing on *not* when realized in negative questions, or with a null Σ^0 when *not* is absent. The crossed-out boxes in (50) and (51) indicate ellipsis. This convention is adopted from Kramer and Rawlins (2009) and will be used in subsequent diagrams showcasing my own account of ellipsis.

(50) Is Alfonso not coming to the party?

No = negative answer to negative question

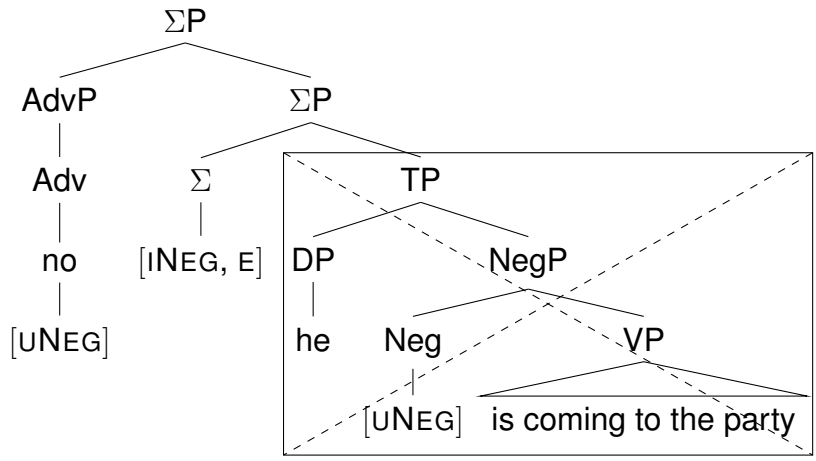
adapted from Kramer and Rawlins (2009, p. 5)



(51) Is Alfonso coming to the party?

No = negative answer to positive question

adapted from Kramer and Rawlins (2009, p. 5)



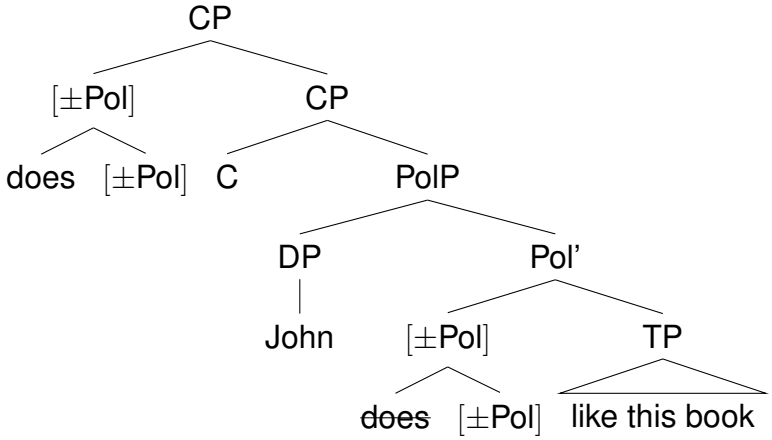
The analysis of Kramer and Rawlins (2009) accounts for the fact that when *no* is realized in response to either a positive or negative question, the outcome will always be negative, as *no*, not being inherently negative itself, forces the appearance of interpretable negation somewhere downstairs in the derivation, even if the interpretable negation is not spelled out (recall discussion in §5.2 for the polar-based system of answering). See also their account for how *yes* in response to negative questions also forces a negative response, accounting for the phenomenon of negative neutralization[10].

Holmberg (2016) argues that questions bearing positive morphology actually have no specified polarity value despite appearing to be positive. Furthermore, he notes that the role of a response particle is to value the open polarity in Pol^0 in the antecedent question. The polarity particle merges in Spec,FocusP and probes its c-command domain to value the polarity head (which may be elided). In Holmberg's framework, 'do' is inserted into Pol^0 and has open polarity (meaning it has

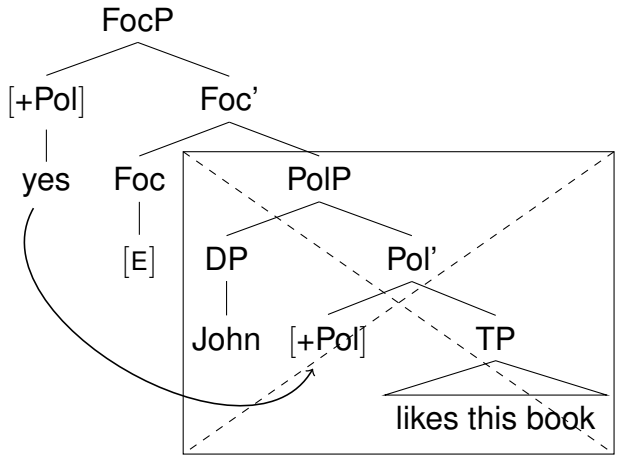
[10]Negative neutralization refers to the fact that either *yes* or *no* in response to a negative question indicates a negative response, the distinction between *yes* and *no* being neutralized in this instance.

not yet been assigned positive or negative polarity), as indicated by the [±Pol] feature in (52).

(52) Does John like this book? adapted from Holmberg (2016)



(53) Yes. adapted from Holmberg (2016)



Holmberg's analysis of positive polarity particles is fairly straightforward. With negative polarity particles, things are a bit trickier, especially with regards to languages like English where the negator *not* does not occur as the head of Pol^0 (although Holmberg argues that suffixal *n't* is the head of Pol^0, I do not discuss this here). In instances where *no* and *not* are realized in tandem, *no* agrees with Pol^0

and *not* assigns negative polarity to Pol^0. Similar to Kramer and Rawlins (2009), *no* is uninterpretable and *not* interpretable for negation.

(54) 'No, he is not coming.' adapted from Holmberg (2016)

[$_{CP}$ [**no**, uNEG] Foc [$_{PolP}$ he [is, [-Pol]] [**not** [iNEG]] [$_{VP}$ coming]]]

The real assignment of negation to Pol^0 comes from the structurally lower *not*. *No* merely signals an agreement relation with Pol^0 and in cases where the structure below is elided serves to signal the head of a chain of interpretable negation. Holmberg, similar to Kramer and Rawlins (2009, 2010) (and also Zeijlstra 2008), assumes that in order for there to be one instance of interpretable negation there can only be one [iNEG] feature in the derivation. This is his motivation for positing that *no* bears [uNEG], as sentences containing a single *not* as in 'John did not go' would have to be interpretable for negation given that *not* is the only negative constituent in the sentence[11]. I refer the reader to Holmberg (2016) for more information on how agreement in his system works.

I discuss issues in §5.4.1 with invoking agreement for analyzing negative responses or hypothetically for negative polarity emphasis, the latter construction not discussed in Kramer and Rawlins (2009, 2010) and Holmberg (2016), as I argue that the two phenomena are non-distinct. I argue against the existence of a PolP which houses either positive or negative polarity and argue that positive polarity is indicated simply by a clause lacking NegP, similar to Krifka (2013).

[11]Of course, it could also be the case that *not* bears [uNEG] and is valued by a silent operator bearing [iNEG]. Zeijlstra (2008) gives such an analysis for strict negative concord languages. I do not discuss this possibility here.

5.4 Analysis

I analyze negative polarity emphasis and negative responses in this section. I adopt a variation of the ellipsis approach to negative responses as alluded to previously, and in §5.4.1 I issue a rejoinder to analyses such as Kramer and Rawlins (2009, 2010) and Holmberg (2016) utilizing some variant of the AGREE operation. I argue for a NegP splitting approach in §5.4.2 to negative polarity emphasis/negative responses. I also discuss instances where *no* and Neg2^0 arise from different extended projections of negation, accounting for *no* being used with both contrastive negation and polarity reversal, polarity reversal really being a form of contrastive negation, following Kramer and Rawlins (2010). I discuss Kramer & Rawlins' account of contrastive negation and polarity reversal in §5.4.1. I reject the propositional anaphor approach to negative responses for reasons mentioned previously and not reiterated here. I argue that *no* and *not* are tautoclausal with negative polarity emphasis, contra the analysis of Poletto and Zanuttini (2013) if it were to be adapted to English. I raise a fourth issue here, namely that existing ellipsis approaches do not account for the complex internal syntactic structure of hi focus negators argued for in this thesis, and thus a simple [NEG] feature on a constituent cannot account for the different semantic import of different classes of negative elements.

5.4.1 Against Agreement and Movement Analyses

I highlight issues with hypothetical agreement and movement analyses of negative polarity emphasis and negative responses, this operation typically reserved for the latter construction in existing analyses. I give more attention to rebutting a hypothetical agreement analysis. The major issues in terms of utilizing AGREE include (i) the fact that negative responses, as they are discussed in Kramer and

Rawlins (2009, 2010) and Holmberg (2016) are really biclausal (see Laka 1990 and previous discussion), and thus AGREE should not apply cross-clausally, (ii) existing analyses posit that negative polarity particles are ambiguous to make sense of their use in agreeing and reversing contexts, which I argue is an undesirable move, and (iii) existing analysis make use of a Pol(arity)P (or ΣP) housing either negative or positive polarity, which I argue is undesirable. For the latter issue, I note that it is possible to get agreement to work without realizing a PolP, and the goal of raising this issue is to specifically rebut agreement accounts of negative responses realizing PolP.

(55-a) and (55-b) are examples of negative polarity emphasis and negative responses respectively in English. (55-b) has an obligatory pause, while (55-a) does not, as alluded to in Laka (1990) and discussed in Poletto and Zanuttini (2013). (11) is repeated in (55).

(55) a. **No** I do**n't**! NEGATIVE POLARITY EMPHASIS

b. **No**, I do**n't**. NEGATIVE RESPONSE

As discussed earlier, I follow Laka (1990) and take negative responses such as (55-b) to be biclausal, the first clause being the prejacent of the antecedent being reacted to and the second clause being added information. Ellipsis accounts of negative responses such as Kramer and Rawlins (2009, 2010) and Holmberg (2016) treat material before and after the pause/comma as tautoclausal. Holmberg, for example, takes sentences like (56) to be one clause.

(56) **No**, he does**n't**.

Given that (56) realizes two clauses, and that *no* and *n't* are realized in separate clauses, it does not make sense to treat the two negative constituents as being in an agreement relation. Note at this point that we still have to make sense of the fact that we can spell out elided material after *no* before the pause and have to

make sense of the downstairs elided negation as in (57).

(57) **No** ~~he does**n't**~~.

The key takeaway here is that negative responses involving two negative elements as in (56) where the first negative element is before the pause/comma and the second after it cannot be related via AGREE, as they exist in two clauses, and AGREE, by standard assumptions, does not apply across two independent clauses. More importantly, when we are talking about negative responses, it is important to understand the difference between sentences like 'No, I don't' and 'No I don't,' which is often glossed over in existing analyses. The focus here is on the latter construction without the pause, which raises the question as to how two tautoclausal negators output to one instance of logical negation. The issues raised thus far in this section do not speak against an AGREE analysis applying to *no* and *not* in negative polarity emphasis constructions, just in negative responses, specifically when the two overt constituents are in separate clauses.

Another issue with a hypothetical agreement approach involves the semantic and syntactic composition of *no* in English. It is mentioned in different ways in Kramer and Rawlins (2009, 2010), Farkas and Roelofsen (2012), and Holmberg (2016) that *no* does double duty as both an agreeing (58-a) and a reversal (58-b) response particle, the former agreeing with and the latter reversing the downstairs sentential negation.

(58) a. John went to the store.
No (he didn't) POLARITY AGREEMENT

b. John didn't go to the store.
No, he DID POLARITY REVERSAL

In each of the aforementioned analyses, *no* is treated as ambiguous. I abstract

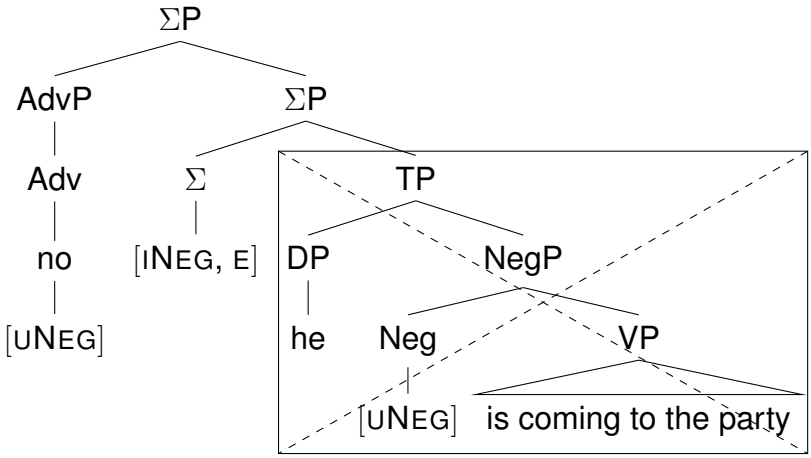
away here from Farkas and Roelofsen (2012) and focus on Kramer and Rawlins (2009, 2010) and Holmberg (2016), where in both analyses there are two lexical items corresponding to *no*.

In Kramer and Rawlins (2009, 2010), *no* is analyzed as being uninterpretable for negation in instances of polarity agreement such as (58-a). The uninterpretability of *no* was shown previously to force negative sentential polarity, accounting for the fact that *no* signals a negative response to both a positive (59) and negative (60) antecedent question. (51) and (50) are repeated in (59) and (60) respectively.

(59) Is Alfonso coming to the party?

No = negative answer to positive question

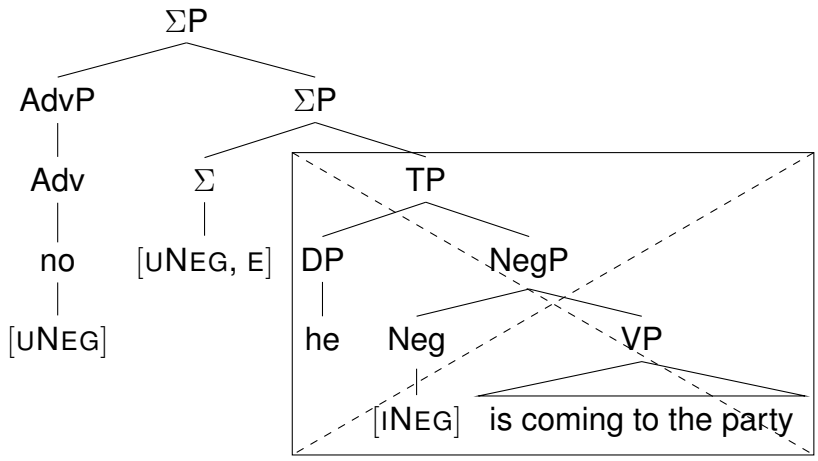
adapted from Kramer and Rawlins (2009, p. 5)



(60) Is Alfonso not coming to the party?

No = negative answer to negative question

adapted from Kramer and Rawlins (2009, p. 5)



Kramer and Rawlins (2010) discuss *no* as a reversal particle. Reversal *no*, different from the aforementioned agreeing *no*, specifically takes the polarity of the antecedent clause being reacted to and reverses it (61). It does not realize a [uNEG] feature. A reversal negator takes replaces the contrastively focused polarity value in the antecedent with the opposite polarity value, following the semantics of corrections laid out in Schwarzschild (1999) and Asher and Lascarides (2003). *O* stands for a polarity value taken from the domain *D* of polarity values.

(61) adapted from Kramer and Rawlins (2010, p. 12)

a. A: Alfonso went to the party.

B: No, Alfonso DIDN'T go. $\Rightarrow \exists O \in D_{\langle\langle st\rangle\langle st\rangle\rangle}$: *O*(Alfonso did go to the party)

b. A: Alfonso didn't go to the party.

B: No, Alfonso DID go. $\Rightarrow \exists O \in D_{\langle\langle st\rangle\langle st\rangle\rangle}$: *O*(Alfonso did go to the party)

I note that the analysis of polarity reversal is essentially the one I give in my own analysis, with some important tweaks to be discussed in §5.4.2.

I also adopt Kramer & Rawlins' account of *no* being used with contrastive negation (62). (62) follows the same arrangement in (61), modulo the fact that an R-expression is contrasted instead of a polarity value.

(62) adapted from Kramer and Rawlins (2010, p. 12)

a. A: Alfonso didn't go to the party.

b. B: No, JOANNA didn't go. $\Rightarrow \exists X$:*X* didn't go the party.

I argue for my analysis of negative polarity reversal and contrastive negation, adopting aspects of Kramer and Rawlins (2010), in §5.4.2.

I discuss here the account of polarity reversal in Holmberg (2016). In his framework, *no* can be either uninterpretable or interpretable for negation, the uninterpretable version discussed in §5.3.2. The *no* that is interpretable for negation is used with polarity reversal. When interpretable, *no* is merged with a negative clause, the result is that the two instances of interpretable negation cancel each other out and yield positive polarity. (65) and (66) model the response in (64), and (66) models the resulting positive polarity from the two instances of interpretable negation in (64)[12].

(64) Q: Is John not coming?

A: No, he is. Holmberg (2016)

(65) adapted from Holmberg (2016)

[$_{CP}$ [**no**, iNEG] Foc [$_{PolP}$ he [is, [-Pol]] [**not** [iNEG]] [*v*P ~~is~~ [$_{VP}$ coming]]]]

[12]Holmberg gives an entirely different account of positive polarity reversal particles. These particles are endowed with a special [+Rev] feature which changes the downstairs polarity of the clause it modifies. (63) gives an example of the positive reversal particle *jo* in Swedish and how Holmberg diagrams polarity reversal, the example adapted from Holmberg (2016)[13].

(63) a. Har Johan inte kommit?
has Johan not come
'Has Johan not arrived?'

b. Jo.
yes.REV
'Yes (he is coming)'

[$_{CP}$ [jo, **+Pol, REV**] Foc [$_{IP}$ John [har, **+Pol**] [[~~inte~~ **iNeg** [kommit]]]]]

(66) adapted from Holmberg (2016)

[$_{CP}$ [$_{PolP}$ he [is, [+Pol]] [*v*P ~~is~~ [$_{VP}$ coming]]]]

In order for the aforementioned analyses of *no* to work out, there have to be two distinct lexical items with the form *no*. I believe that this move is undesirable. For example, in Italian, *no* denotes both polarity agreement (67) and polarity reversal (68). (3) is repeated in (67).

(67) [Italian] adapted from Andorno and Rosi (2015, p. 106)

a. A: Non stai bene?

Are you not feeling well? p = 'You are feeling well'

b. B: **No** = $\neg p$ (Speaker B is not feeling well)

(68) Alessandro Jaker, personal communication

a. Giovanni non è andato là.
Giovanni NEG is gone there
'Giovanni didn't go there.'

b. **No**, C'È andato.
NEG, there is gone
'No, he DID go'

Given that polarity agreement and polarity reversal are signaled by the same particle (a hi focus negator) in other languages, it makes sense to give a unitary semantics to the hi focus negator, or else one has to assume that the hi focus negator is ambiguous in the same way cross-linguistically.

A final issue with the aforementioned agreement approaches is that they assume a Pol(arity)P or ΣP, henceforth PolP, which houses both positive and negative values. I believe this move is undesirable. The main purpose of the discussion here is to rebut the analyses of Kramer and Rawlins (2009, 2010) and Holmberg (2016). I argue that only Spec elements bear positive polarity and not heads, given the lack of data for the existence of positive polarity heads, to be discussed here.

Turning to the framework of Holmberg (2016), it was shown in (54) that PolP is assigned negative polarity by a structurally lower *not* (or by realizing *n't*, not shown here). (54) is repeated in (69).

(69) 'No, he is not coming.' adapted from Holmberg (2016)

[$_{CP}$ [**no**, uNEG] Foc [$_{PolP}$ he [is, [-Pol]] [**not** [iNEG]] [$_{VP}$ coming]]]

Note that the arrangement is (69) is different from other instances of the AGREE operation used for phenomena such as subject agreement in the literature or other analyses of using AGREE for semantic phenomena, such as how it is employed for bipartite negation in Sgaw Karen and French in this framework. More specifically, an interpretable negator initiates the AGREE relation to value an open (neither interpretable or uninterpretable) feature. There are at least two issues here. First, Holmberg's framework complicates the AGREE operation, which I believe is undesirable. Holmberg realizes two distinct types of AGREE, one used to value an uninterpretable feature, as initiated by *no* in (69), and another initiated by a constituent interpretable for negation used to value an open feature. Note also that AGREE can probe both downwards and upwards. Second, I do not believe there is any good evidence for there being an open polarity feature. For example, in English, when a clause is positive and does not realize 'yes,' Holmberg argues that the open polarity feature is valued positive by default. One issue that I raise with this is that, cross-linguistically, there does not appear to be evidence for there being constituents outside of polarity particles, and more specifically heads, marking the positive polarity of the clause (see Horn 1989 for a similar point on the unmarked nature of positive polarity)[14]. That is, the positive polarity head realized in frame-

[14]For example, in Italian, negative polarity emphasis realizes two constituents, a polarity particle and sentential negative head (70-a), while positive polarity emphasis only realizes one constituent, a polarity particle (70-b).

work's like Holmberg's appears to be cross-linguistically null. All of the instances of positive polarity constituents given by Holmberg (2016) for the languages he discusses are positive polarity constituents assigning positive polarity to a structurally lower PolP. Having a PolP marking the polarity of the clause that alternates between negative and positive polarity is undesirable, given that this head is only ever overtly marked by negation (see Starke 2004 for a similar point).

Positive and negative polarity particles intermingle differently with sentential negation and in such a way that it calls into question the existence of a positive polarity head. In English, *yes* confirms either a positive or a negative antecedent (71), a point made in Kramer and Rawlins (2009, 2010) and Holmberg (2016).

(71) a. A: Did John go?
B: Yes (he did go).
b. A: Did John not go?
B: Yes (he did**n't** go).

(71) indicates that *yes*, a positive polarity particle treated as heading an elided clause, can head a sentence with (71-b) or without (71-a) a negator present in the elided clause, although I note that judgments on the spell out of elided material in (71-b) do not appear to be uniform. The important takeaway here is that (71-b) is that *yes* can co-occur with an opposite polarity variable tautoclausally. A similar point is made in Batllori and Hernanz (2011) for Spanish. In frameworks such as

(70) Italian — adapted from Poletto and Zanuttini (2013)
a. **No** che **non** è arrivato.
NEG that NEG is arrived
'He did not!' — NEGATIVE POLARITY EMPHASIS (2 Negative Elements)
b. **Sì** che è arrivato.
yes that is arrived
'Of course!' — POSITIVE POLARITY EMPHASIS (1 Positive Element)

(70-b) is positive and lacks a head marking the positive polarity of the clause in a similar manner to *non* marking the negative polarity of the clause in (70-a). Italian shows an asymmetry in that negative but not positive polarity is marked by a head.

Holmberg (2016), *yes* either affirms the negative polarity of the clause or assigns positive polarity (53). In the former case, *yes* does not initiate the AGREE operation. However, it is possible to analyze *yes* as affirming the polarity of the clause it modifies, be it positive (71-a) or negative (71-b), rather than assigning positive polarity to a lower polarity head (53). While *yes* can co-occur with an opposite polarity variable, *no* cannot (72-b)[15]. Recall that with negative polarity reversal, the positive clause after *no* comes after a pause/comma indicating a separate clause (58-b), so the positive polarity in the continuation clause is not tautoclausal *no*[16].

(73) A: Did John go?

a. B: No (he did**n't** go).

b. B: *No (he did go). (without a pause/comma after *no*)

This indicates that while *yes* is permissive in terms of co-occurring with an opposite polarity value, *no* is not. This paradigm can be modeled by assuming that *yes* simply affirms the polarity of the antecedent proposition, similar to Holmberg (2016) and his analysis of *yes* specifically when the antecedent proposition is negative, rather than have it assign positive polarity to a downstairs polarity phrase, similar to Kramer and Rawlins (2009, 2010). Under this analysis, there are no particles capable of assigning a positive value to a downstairs polarity head, entailing that there is no need to realize a polarity head that could house a positive polarity

[15] Alessandro Jaker, in personal communication, notes also that *no* in Italian cannot occur without a tautoclausal *non*, indicating that *no* in Italian cannot intermingle with positive polarity.

[16] Both Neg3P and Neg2^0 are obligatory with negative polarity emphasis in Italian as well. Poletto and Zanuttini (2013) note the following data:

(72) adapted from Poletto and Zanuttini (2013, p. 136)

a. **No** che **non** mi hanno invitato a casa loro!
NEG that NEG me have invited to home their
'They did NOT invite me to their home.'

b. ***No** che mi hanno invitato a casa loro!
NEG that me have invited to home their
Intended: 'They did NOT invite me to their home.'

variant. With *no* (specifically non-reversal *no*) it can be stated that *no* is either assigning a negative value to a downstairs negative head, or as I will argue in my analysis, *no* and the structurally lower negative head derive from a single projection of negation, accounting for the fact that *no* signals negative polarity.

Finally, although I have argued against the propositional anaphor account of polarity particles in Krifka (2013), I believe that his account of the anaphoric properties of *that* is correct and buttresses the claim here that there cannot be a PolP alternating between positive and negative polarity. Recall that in response to a negative antecedent, *that* can refer back to either the whole negative antecedent or its positive prejacent. (42) is repeated in (74).

(74) adapted from Krifka (2013, p. 5)

Two plus two isn't five. $[_{\text{NegP}}$ two plus two isn't $[_{\text{TP}}$ ~~two plus two~~ ~~is~~ five]]

a. Everyone knows **that**.

(**that** refers to NegP, where NegP = 'two plus two isn't five')

b. **That** would be a contradiction.

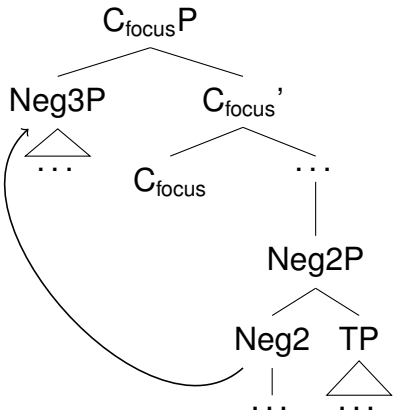
(**that** refers to TP, where TP = 'two plus two is five')

Krifka's analysis crucially relies on the fact that the positive prejacent is in the structure of the negative antecedent such that *that* can refer to either the NegP or the positive TP dominated by NegP. If there were a PolP where positive polarity is assigned, then it could not be the case that *that* could refer to a positive prejacent in (74) as the PolP would signal negative polarity and no positive prejacent would be present in the syntactic structure. Thus, positing a PolP where negative and positive polarity covary cannot make sense of the fact that *that* in (74) can refer back to a positive or negative clause.

I argue briefly against a hypothetical movement account of negative polarity emphasis where the two negators are two copies of a constituent in a move-

ment chain. Recalling previous discussion, Batllori and Hernanz (2011) account for positive polarity emphasis in Spanish and Catalan by arguing for movement from Spec,PolP to Spec,FocP. Their analysis could be imported into this analysis such that the two constituents taking part in this construction are spell outs of two members of a movement chain (75)[17].

(75) A Hypothetical Movement Chain Account of Negative Polarity Emphasis



In chapter two, I noted that this analysis is problematic on account of data discussed in Barbiers (2009) and Barbiers et al. (2009). In movement chains, the structurally highest member must have either equal or less internal structural than the lowest member of the chain. In Dutch, pronoun doubling is argued to be the spell out of two members of a movement chain, where the highest member may be a strong pronoun (76-a) or a weak pronoun (76-b) realizing less structure than the structurally lower pronoun in the movement chain. A strong pronoun cannot double off a structurally lower weak pronoun (76-c). (76) is repeated from chapter two.

(76) adapted from Barbiers (2009, p. 16)

a. **Zij** heeft **zij** daar niks mee te maken.
she.STRONG has she.STRONG there nothing with to do

[17]Note also the potential issue with realizing head-to-spec movement in (75).

'She had got nothing to do with it.

b. **Ze** heeft **zij** daar niks mee te maken.
she.WEAK has she.STRONG there nothing with to do
'She had got nothing to do with it.

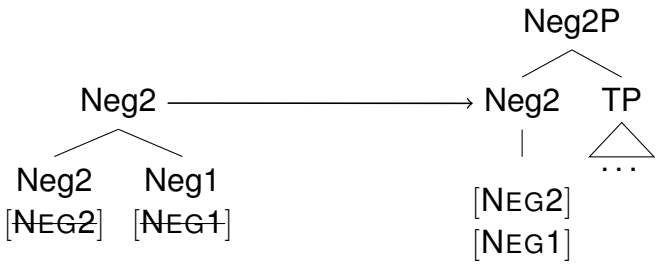
c. *__Zij__ heeft **ze** daar niks mee te maken.
she.STRONG has she.WEAK there nothing with to do
'She had got nothing to do with it.

A movement account of negative polarity emphasis does not work in this analysis as the structurally higher negator with negative polarity emphasis realizes more internal structure than the structurally lower negator, as argued for in chapter two. Since movement chains are such that the higher member cannot realize more internal structure than the lower member, it follows that the two negators taking part in negative polarity emphasis cannot be the spell out of two constituents in a movement chain.

5.4.2 Negative Polarity Emphasis is NegP Splitting

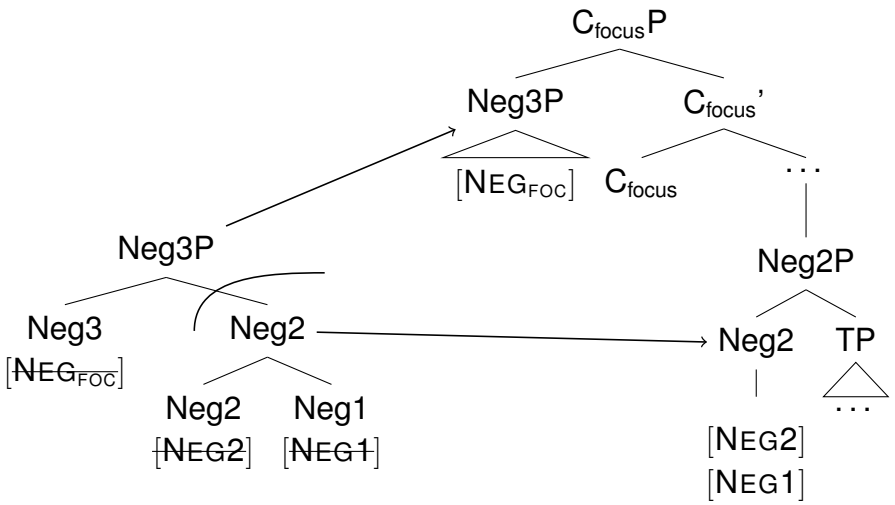
I argue that the single interpretable negation between Neg3P and $Neg2^0$ in negative polarity emphasis constructions in English is due to NegP splitting. I rehash discussion from chapter two on NegP splitting before analyzing the English data specifically. The extended projection of negation and the clausal spine are built in parallel domains (similar to Vergnaud and Zubizarreta 2001 and Megerdoomian 2008 for nominal and verbal projections). The extended projection is built to $Neg2^0$ and the clausal spine to TP (77). $Neg2^0$ merges with TP and projects Neg2P. The features in the extended projection of negation are transferred to the clausal spine.

(77) $Neg2^0$ Merges with TP



Neg2^0 and its features are responsible for marking negative polarity. The extended projection of negation is then built to Neg3P and the clausal spine to C_{focus}P. Neg3P merges in Spec,C_{focus}P, and the feature [NEG$_{FOC}$] is realized in the clausal spine. Note that Neg3P contains Neg2 and Neg1, but does not realize the [iNEG2] and [iNEG1] features which have been transferred to Neg2^0 in the clausal spine.

(78) Neg3P Merges in Spec,C_{focus}P



Neg3P in tandem with Neg2^0 is responsible for negation targeting an antecedent proposition, and not just Neg3P alone. The single interpretation of negation arises from the single extended projection of negation merged in two separate places in the clausal spine, the negative features being split between Neg3P and Neg2^0. Neg2^0, due to its feature composition, marks negative polarity, and Neg3P bearing [NEG$_{FOC}$] marks that negative polarity targets an antecedent, here specifically an antecedent proposition.

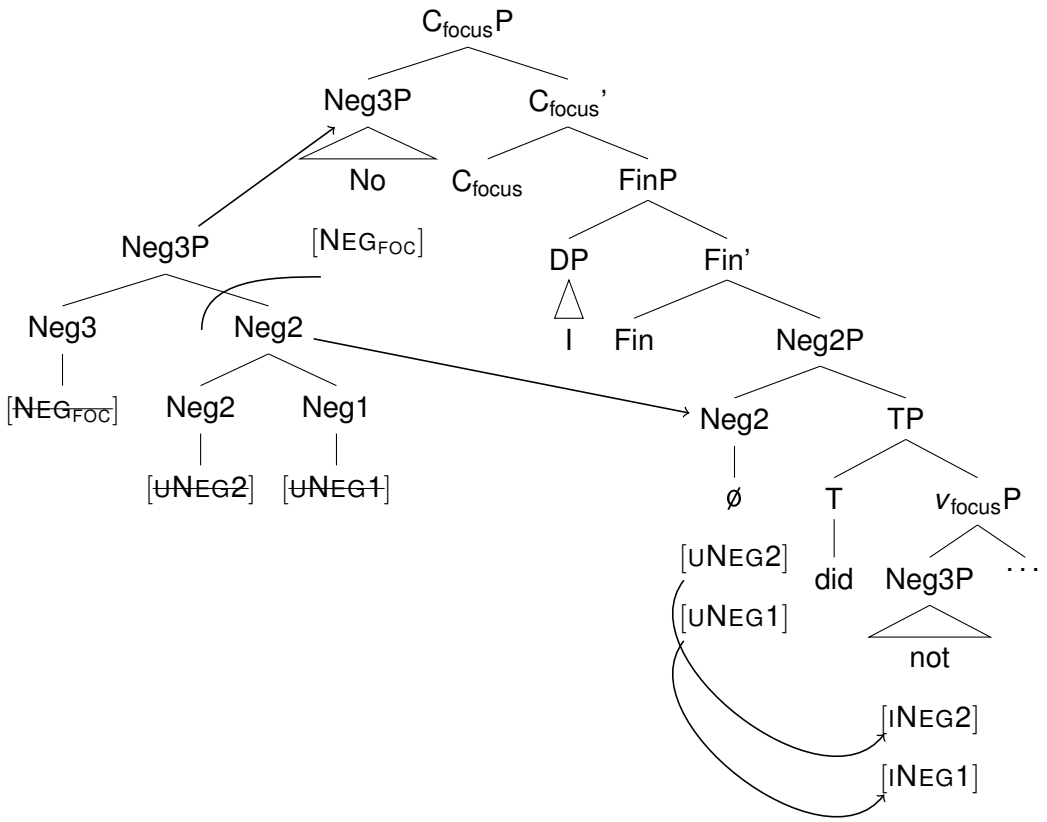
The analysis here is similar in scope to NegP splitting analyses like Poletto (2008) and de Clercq (2013). The primary difference between this and the aforementioned frameworks is that in this framework the single extended projection of negation is not merged in the *v*P domain with subsequent movement operations targeting projections higher in the clausal spine (see Poletto 2008 and de Clercq 2013 for more details, I set aside an in-depth analysis of their analyses here for reasons of space). Instead, a single extended projection of negation is built in a separate derivational workspace and two phrases in the extended projetion of negation are merged in two separate places in the clausal spine.

NegP splitting derives the obligatory presence of *no* and *not* in negative polarity emphasis constructions (79) (see also Poletto and Zanuttini 2013 for Italian).

(79) *(**No**) I did *(**not**)!

Both Neg2^0 and Neg3P are merged in the clausal spine in negative polarity emphasis constructions (80), Neg2^0 marking negative sentential polarity and Neg3P marking that negation targets an antecedent proposition. Neg2^0 must be in an agreement relation with *not*, accounting for the obligatory presence of *not* with *no*.

(80) **No** I did **not**.



I now turn to discussing the benefits of adopting a NegP splitting approach to negative polarity emphasis.

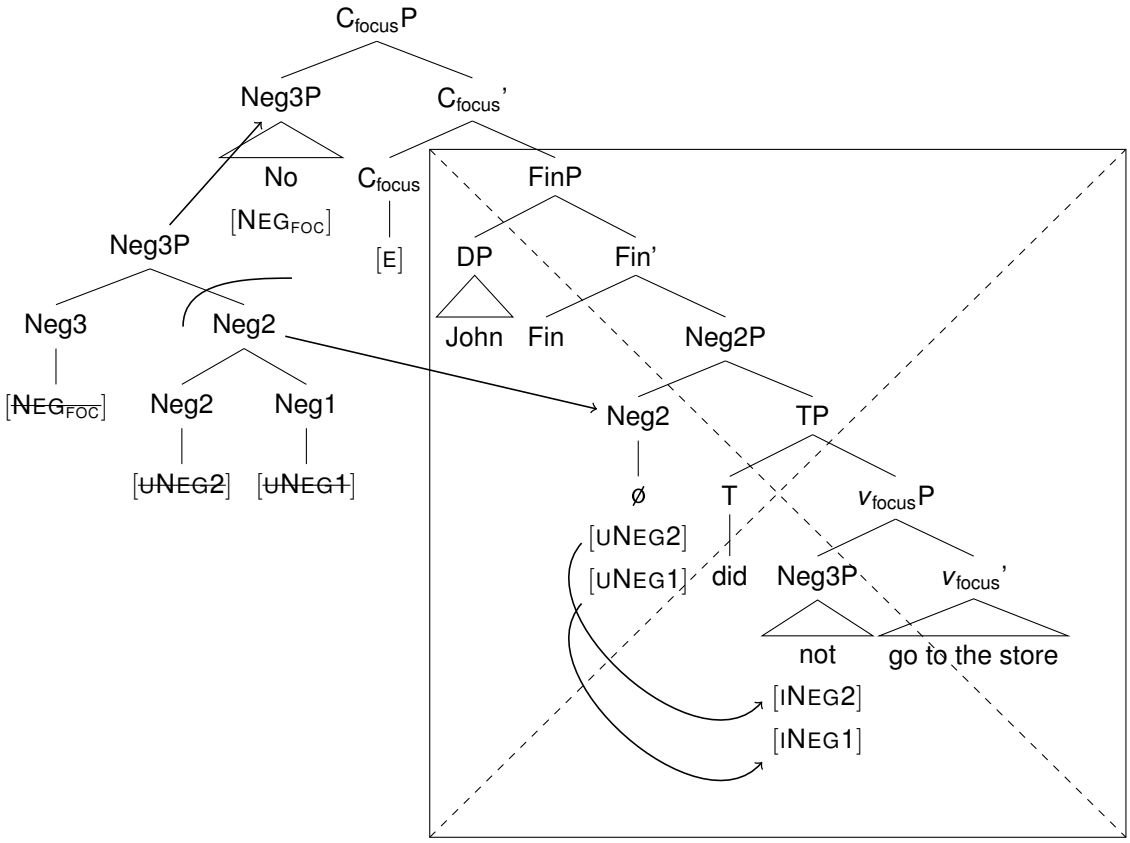
No always marks a negative response when uttered in isolation, either in response to either a positive (81-a) or negative (81-b) antecedent. (5) and (2) are repeated in (81-a) and (81-b) respectively.

(81) a. A: Did John go to the store?
B: **No** = $\neg p$ (John didn't go to the store)
b. A: Did John not go to the store?
B: **No** = $\neg p$ (John didn't go to the store)

This framework derives the facts in (81) as follows. *No* and Neg2^0 arise from a single extended projection of negation. This means that in all instances where *no* is realized, specifically in a non-reversal context (more on this later in this section),

it will always signal negative sentential polarity, given the tight connection between *no* and Neg2^0. (82) may serve as an answer to the questions in either (81-a) or (81-b).

(82) **No** ~~John didn't go to the store~~



At this point, this analysis makes the same predictions as Kramer and Rawlins (2009, 2010) and Holmberg (2016) in that *no* forces negative sentential polarity when uttered in isolation. I now discuss where this and the aforementioned frameworks part ways.

This analysis derives the fact that in a negative response, material before the pause or comma is an elided form of a negative polarity emphasis construction. Frameworks such as Kramer and Rawlins (2009, 2010) and Holmberg (2016) treat material before and after the pause/comma as being tautoclausal, which I have argued, following discussion in Laka (1990), is incorrect. This analysis thus suc-

ceeds in making sense of the fact that *no* in English is used for both a negative response and in negative polarity emphasis constructions.

This analysis makes an interesting prediction to be expounded upon in §5.5.1, specifically that a language exhibiting negative polarity emphasis must conform to the polar-based system of question answering. The idea is that a negative polarity emphasis construction always marks sentential negation, and since a negative response particle is the highest constituent in an elided negative polarity construction, it follows that there must always be downstairs sentential negation. To the best of my knowledge, the connection between negative polarity emphasis and the polar-based system of answering holds true across a number of languages, to be shown in §5.5. Analyses not connecting negative responses with negative polarity emphasis do not make these predictions.

One might object to the fact that hi focus negators do double duty in being used as a negative response and in negative polarity emphasis constructions based on the fact that *no* imparts a heightened sense of emphasis in the latter construction and not in the former, a point made in Poletto and Zanuttini (2013). Note the pragmatic difference of uttering *no* in (83-a) and (83-b).

(83) a. A: Did John go?
B: **No**

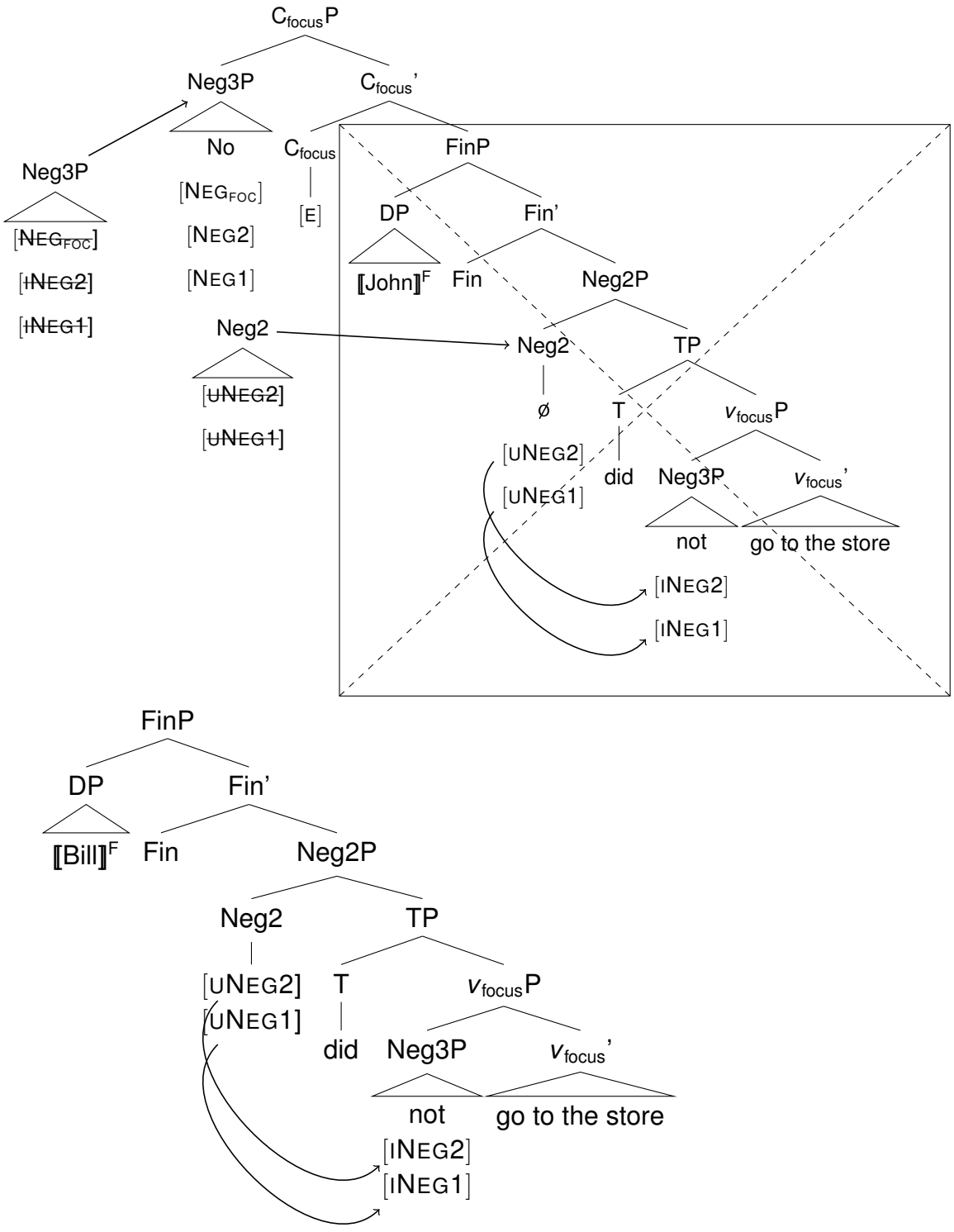
b. A: John went.
B: **No** he didn't!

I argue that the heightened sense of emphasis in (83-b) is really the result of *no* being used as a divergent response, in the sense of Asher and Lascarides (2003), to Speaker A's assertion, divergent meaning that Speaker A and Speaker B are in disagreement about the issue under discussion. In both (83-a) and (83-b), *no* is used specifically to negate an antecedent proposition. That (83-b) sounds more

emphatic than (83-a) is that Speaker A has not committed to the prejacent proposition being true in (83-a), and the response of *no* does not produce a divergent response. Speaker B's divergent response makes it sound as though the speaker is conveying some degree of emphasis, which I argue is due to the context in which *no* is uttered rather than the semantics of *no*.

I now turn to how my analysis captures contrastive negation and negative polarity reversal. I argue that in these instances, *no* and *not* derive from separate extended projections of negation. I have argued that when *no* and Neg2^0 occur as the result of NegP splitting, the function of both *no* and Neg2^0 is to negate an antecedent proposition, where Neg2^0 is responsible for marking negative sentential polarity and Neg3P bearing the $[\text{NEG}_{\text{FOC}}]$ feature needed to target an antecedent. When *no* and *not* are realized in separate extended projections of negation, the two constituents do not impart one instance of logical negation. I argue that in this configuration, *no* is used as a contrastive negator in a manner similar to *not* and targets specifically a sub-propositional constituent, similar to Kramer and Rawlins (2010). This is equivalent to the semantics of correction discussed in Kramer and Rawlins (2010) and references cited therein. A second continuation clause is required, as per the syntax of corrections. $[\![\ ]\!]^{\text{F}}$ denotes that the constituent is contrastively focused in (84) and forthcoming diagrams.

(84) A: John didn't go to the store.
B: No, BILL didn't go to the store.

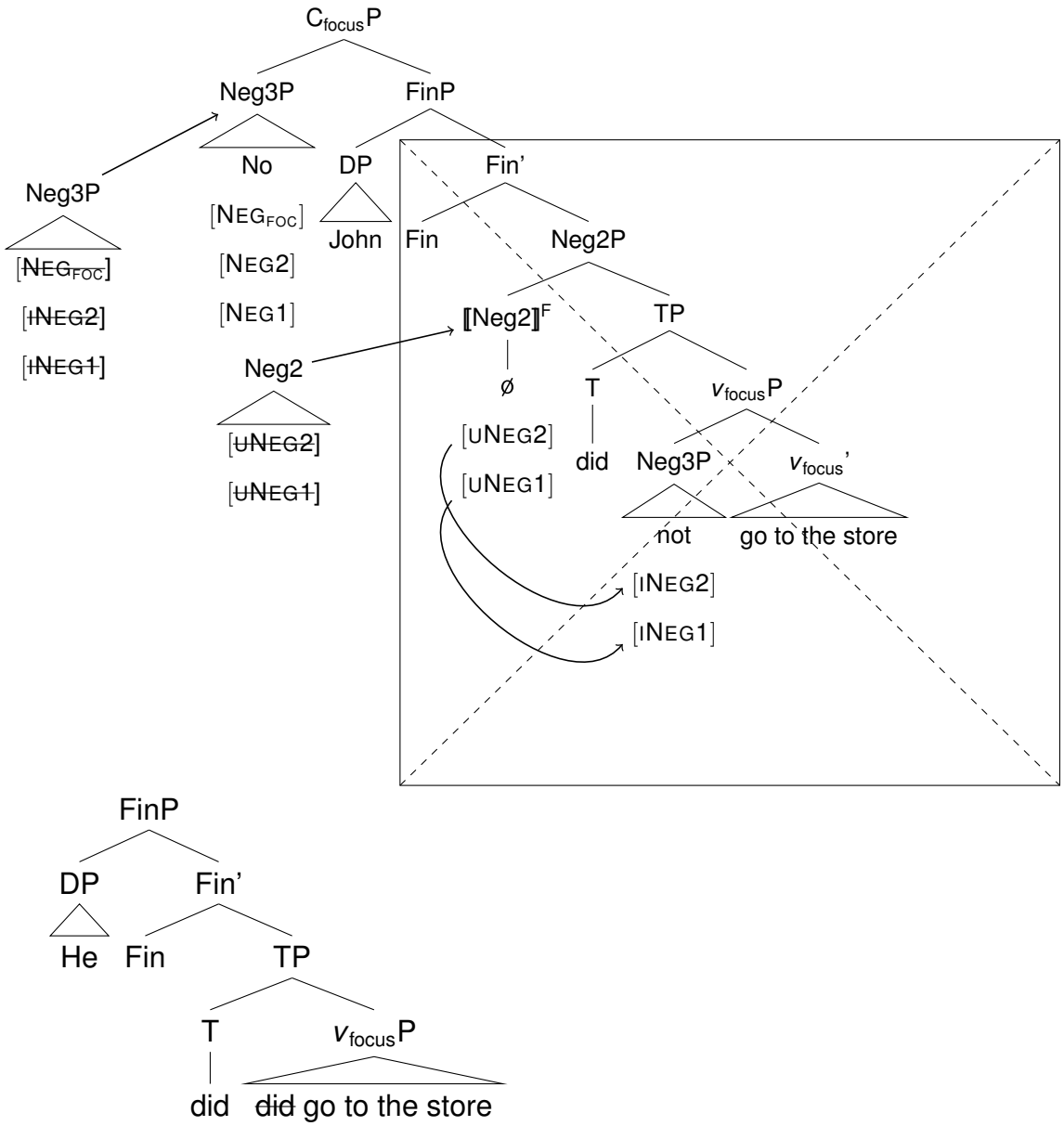


By targeting a contrastively focused constituent, *no* is not contributing to sentential negation. Thus, *no* and Neg2^0 in tandem do not cancel each other out and

yield a positive statement, which would entail that the speaker is asserting that John did in fact go to the store. That *no* and *not* do not derive from a single extended projection of negation and undergo NegP splitting derives the fact that the speaker is not in agreement with the negativity of the antecedent.

Importing the analysis of negative polarity reversal in Kramer and Rawlins (2010) to the framework here, *no* may target a contrastively focused Neg2^0 (85), the two constituents arising from separate extended projections of negation to account for the lack of polarity agreement with the antecedent clause. The result is that the contrastively focused Neg2^0 is replaced with nothing in its place in the continuation clause, the NegP-less clause signaling positive polarity. (85) is similar to the derivation in (84), modulo the fact that polarity is being contrasted instead of an R-expression.

(85) A: John didn't go to the store.
B: No, he DID go (to the store).



Note in (85) that Neg2P is not replaced with a positive polarity head, and Neg2P is simply eliminated from the second clause. I have argued against an account where there is a PolP housing both negative and positive variants, so it cannot be the case that the second clause contains a PolP that is assigned positive polarity instead of negative polarity. This framework thus posits that it is possible to replace a contrastively focused constituent (here a null Neg2^{0}) with nothing in its place.

Whether or not this is an issue for the syntax of ellipsis is a matter I set aside here, although I maintain that it is undesirable to replace Neg2^0 with a null positive polarity head, given arguments in §5.4.1. *No* is similar to *not* in being used as a contrastive negator. The primary difference between the two is that *no*, unlike *not*, is used also to contrast polarity. This is due to the fact that *no* is in a position to c-command Neg2^0 above TP, as *not* is merged lower than TP. My framework shares many of the insights of Kramer and Rawlins (2010), although primarily differs in that *no* has the same feature makeup in both polarity agreement and polarity reversal contexts.

I now speculate on the ineffability of the material before the pause/comma when *no* is used with contrastive negation/negative polarity reversal. It has already been shown that the overt co-occurrence of a hi focus negator and a contrastively focused constituent is ungrammatical ((86) and (87)) (see discussion in Hernanz 2006 and Poletto and Zanuttini 2013). The Italian example (29) is repeated in (86).

(86) *AVATAR **no** che **non** abbiamo ancora visto.
Avatar no that NEG have yet seen
'No we haven't seen AVATAR yet!'

adapted from Poletto and Zanuttini (2013, p. 136), translation my own

(87) ***No** JOHN didn't go to the store . . .

I assume that a tautoclausal *no* and a focused element in negative polarity reversal and contrastive negation constructions are ungrammatical in the same manner as in (86) and (87). I assume that *no* and the focused element are competing for the same position at LF, namely Spec,C_{focus}P (see Hernanz 2006 for a similar idea). Perhaps, in a similar manner to how island effects are ameliorated due to PF-deletion[18], it is possible that deleting material below *no* ameliorates the ungram-

[18]Merchant (2001) gives the following example of PF-deletion ameliorating the island effect shown in (88-b):

maticality of sentences such as (87) and (88), modulo some syntactic restrictions (for example, not deleting past *no* if a focused subject occurs before it (87)). I have no way of accounting for this fact at the present, but note that the connection can be made between PF-deletion ameliorating ungrammatical constructions and the ineffability of material after *no* when it is used for contrastive negation. These same facts can be extended to account for negative polarity reversal. The spell out of material before the pause/comma with negative polarity reversal is ungrammatical (89), and perhaps becomes grammatical with PF-deletion.

(89) *__No__ John did NOT go to the store . . .

I set aside further discussion on the ineffability of these clauses for future research.

This analysis succeeds in positing a single lexical item *no* with a unitary semantics in all its uses. One might object to the analysis here based on the idea that instead of arguing for two lexical instances of *no* (as in Kramer and Rawlins 2009, 2010 and Holmberg 2016, although executed differently in the two frameworks), accounting for its use in polarity agreement and polarity reversal respectively, I have simply substituted two separate constructions in which *no* can appear, and thus my analysis posits a similar ambiguity as the aforementioned frameworks that I have sought to argue against.

(90) a. Old analysis: $No_{\text{agreement}}$, No_{reversal}

b. New analysis: *No* with NegP splitting, *No* without NegP splitting

There are two objections that I have to this hypothetical argument, and I devote a paragraph to each issue.

(88) Merchant (2001, p. 4)

a. They want to hire someone who speaks a Balkan language, but I don't remember which.

b. *They want to hire some who speaks a Balkan language, but I don't remember which they want to hire someone who speaks.

First, I argue that NegP splitting is necessary so as to not resort to having *no* initiate the AGREE operation so as to have two overt negators output to one instance of logical negation. As I have shown in this thesis, agreement with negation only occurs when the head Neg2^0 is uninterpretable for negation, meaning it does not have the semantic import of negation. I believe it is much simpler to keep to a version of AGREE that is initiated specifically by an uninterpretable head and with downward probing than complicating the operation to allow for XPs and semantically interpretable constituents to initiate AGREE and to allow for a mix of downward and upward probing.

Second, my framework makes an important connection between languages lacking NegP splitting and the clausal structure of their answers, covered in §5.5.2. More specifically, I show that a language lacking NegP splitting realizes the truth-based system of answering.

5.5 Predictions for Answering Systems

The analysis here makes specific predictions for the polar- and truth-based answering systems, covered in separate subsections here. In the polar-based system of answering, a hi focus negator in response to a negative antecedent indicates a negative reply (91-a), and in the truth-based system of answering, a hi focus negator in response to a negative antecedent indicates a positive reply (91-b) (see Holmberg 2016 for more information). (91-a) is in English and (91-b) is in pseudo-English.

(91) A: Did John not go to the store?

a. B: No (=John did not go to the store) POLAR-BASED SYSTEM

b. B: No (=John did in fact go to the store) TRUTH-BASED SYSTEM

The terms polar-based and truth-based systems are somewhat misleading, given the fact that English *no* can be used to agree with or reverse the antecedent polarity, although I will continue to use these terms as they are common terms in the literature. I show in §5.5.2 that the truth-based system can be better thought of as polarity reversal, similar to but distinct from arguments discussed in Holmberg (2016), Holmberg and Wu (2018), and Wu (2016), these arguments to be discussed in this section.

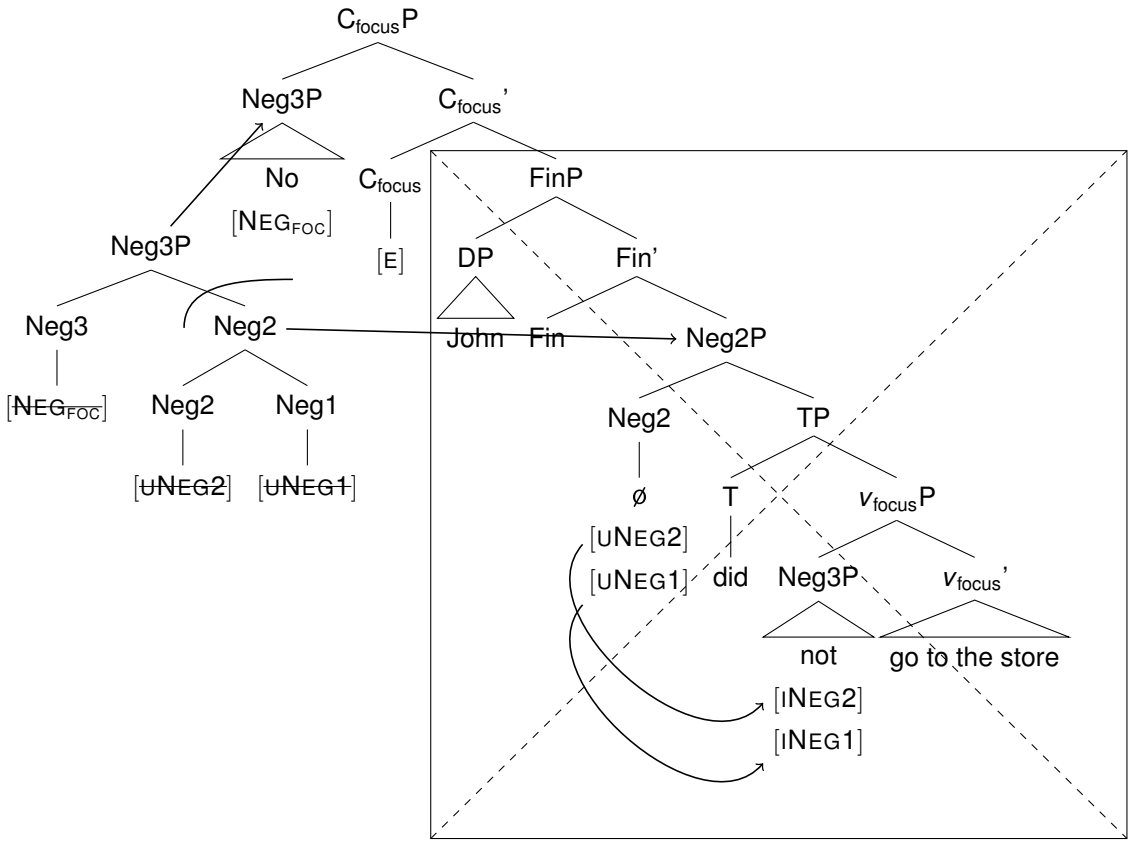
5.5.1 The Polar-based Answering System Realizes NegP Splitting

This framework makes the prediction, alluded to earlier and expounded upon here, that the polar-based answering system necessarily invokes NegP splitting, as NegP splitting ensures that *no* occurs with tautoclausal negative sentential polarity. (92-c) serves as a negative response to either (91-a) or (91-b), the polarity of the antecedent clause being immaterial, as *no* realized with NegP splitting always signals negative sentential polarity. (82) is modified and repeated in (92).

(92) a. A: Did John go to the store?

b. A: Did John not go to the store?

c. B: **No** ~~John didn't go to the store~~



Given that NegP splitting is also invoked to account for negative polarity emphasis, this framework makes the prediction that if a language has negative polarity emphasis, then it must be the case that it conforms to the polar-based system of answering as this construction necessarily marks negative sentential polarity, a negative response realizing an elided negative polarity emphasis construction. This happens to be the case for all languages that I am aware of. This happens to be the case for English (already clearly demonstrated) and Italian (93) and (94). (26) and (3) are repeated in (93) and (94).

(93) [Italian] adapted from (Poletto and Zanuttini, 2013, p. 127)

a. A: È arrivato in ritardo alla riunione, come sempre.
is arrived in delay to-the meeting as always
'He arrived late to the meeting, as always'

b. B: **No** che **non** è arrivato in ritardo!
NEG that NEG is arrived in delay
'He DID NOT arrive late!'

(94) [Italian] adapted from Andorno and Rosi (2015, p. 106)

a. A: Non stai bene?

Are you not feeling well? *p* = 'You are feeling well'

b. B: **No** = ¬*p* (Speaker B is not feeling well)

Catalan exhibits negative polarity emphasis (see Hernanz 2006, although she does not use this term) (95), and is noted by Holmberg (2016) to conform to the polar-based system of answering (he does not give an example).

(95) **No** que **no** ha vingut la Lola.
no that NEG has come the Lola
'But Lola did *not* come.' adapted from Hernanz (2006, p. 128)

The same facts hold true for Ojibwe ((96) and (97)). In chapter six, I show that negative polarity emphasis constructions and canonical sentential negation in Ojibwe have the same syntax, glossed over here.

(96) a. Gii-izhaa zaaga'igan.ing bijiinaago.
PST-go lake.LOC yesterday
'She went to the lake yesterday.'

b. **Gaawiin** gii-izhaa.**siin**.
NEG PST-go.NEG
'No she didn't.'

(97) *p* = Speaker B is hungry

a. A: **Gaawiin** ina gi.bakade.**siin**?
NEG Q 2SG.hungry.NEG
'Aren't you hungry?'

b. B: **Gaawiin**
NEG
'No' = ¬p (Speaker B is not hungry)

French exhibits similar facts (98) and (99), modulo the fact that three constituents, instead of two, take part in negative polarity emphasis (*ne* is optional).

(98) Oh que **non** que je (**ne**) vous le vendrai **pas**.
oh that NEG that I NEG you it will sell NEG
'Of course I wouldn't sell you that!'

adapted from Poletto and Zanuttini (2013, p. 130)

based on ex. (111) in Authier (2013, p. 386)

(99) adapted from l'Huillier et al. (1999, p. 641)

a. Vous n'avez pas compris?

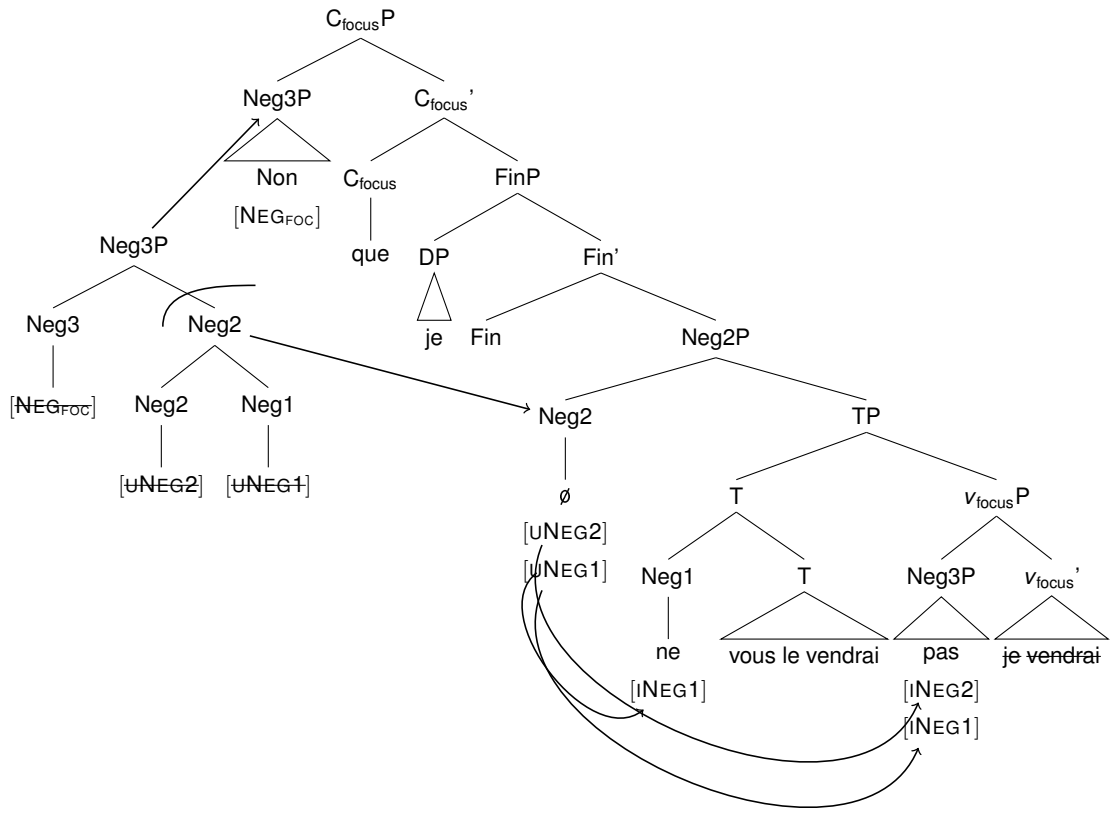
You did not understand?

b. **Non** (en effet, je n'ai pas compris)

No (in fact, I did not understand)

The important similarity between French and the aforementioned languages is that Neg3P and Neg2^0 are realized in tandem, as diagrammed in (100), which combines the agreement analysis of French bipartite negation argued for in chapter four with NegP splitting, accounting for how three negative constituents output to one instance of sentential negation. (100) diagrams (98), leaving out the 'oh que' portion of the sentence. It is not clear where the clitics *vous* and *le* occur, and I show them as being affixed to T^0.

(100) Oh que **non** que je (**ne**) vous le vendrai **pas**.



Note that if a language realizes the polar-based answering system, then it does not necessarily have to realize negative polarity emphasis. One such language is Spanish. Compare (101) with the minimally different (95) (this comparison is discussed in Hernanz 2006).

(101) ***No** que **no** ha venido Juan. [Spanish]
NEG that NEG has.3SG come Juan
Intended: 'But Juan has *not* come'

adapted from Hernanz (2006, p. 128), gloss and translation is my own

It is noted in Holmberg (2016) that Spanish conforms to the polar-based system of answering, although he does not give an example. I set aside the data on Spanish for future research. Perhaps there is NegP splitting in Spanish and Neg2^0 simply gets deleted at PF, compared to Catalan where Neg2^0 is spelled out (95).

The important point here is that this framework makes the prediction that if a

language realizes negative polarity emphasis, then it must conform to the polar-based system of answering. To the best of my knowledge, this prediction has not been made before in the literature. It should be noted that the term polar-based system of answering, as it is used in the literature, is somewhat simplistic. In English, and also Italian (68), hi focus negators can also reverse the polarity of the clause, and in this particular case it looks like the language conforms to the truth-based system of answering, given that the hi focus negator contradicts the negative polarity of the antecedent clause. As I will show in the next section, the term truth-based system of answering really just refers to polarity reversal, an idea more or less articulated in Holmberg (2016), Holmberg and Wu (2018), and Wu (2016), and shown in the next subsection.

5.5.2 The Truth-based Answering System Lacks NegP Splitting

Recall that in the truth-based system of answering, responding with a negative reply to a negative antecedent indicates the positivity of the antecedent proposition (102-b). (91) is repeated in (102) and (102-b) is an example of pseudo-English.

(102) A: Did John not go to the store?

a. B: No (=John did not go to the store) POLAR-BASED SYSTEM

b. B: No (=John did in fact go to the store) TRUTH-BASED SYSTEM

The syntax of pseudo-English in (102-b), where *no* is spelled out in isolation, is not realized in truth-based languages. Wu (2016) and Holmberg and Wu (2018) note that for languages conforming to the truth-based system, spell out of extra clausal material is necessary. This holds for Taiwanese (103) and Mandarin (104).

(103) [Taiwanese] adapted from Holmberg and Wu (2018, p. 19)

a. Lauong bô lim ka-pi nih?
Lauong not have drink coffee Q

‘Does Lauong not drink coffee?’

b. **m-si**, i u (lim (kapi)).
NEG he have drink coffee
‘No (he does)’

(104) [Mandarin]

adapted from Wu (2016, p. 186), cited in Holmberg and Wu (2018, p. 22)

a. Laocheng mei(you) qu ma?
Laocheng NEG.have go Q
‘Did Laocheng not go (there)?

b. **bu**, *(ta qu le)
NEG he go PRFV
‘No, he did’

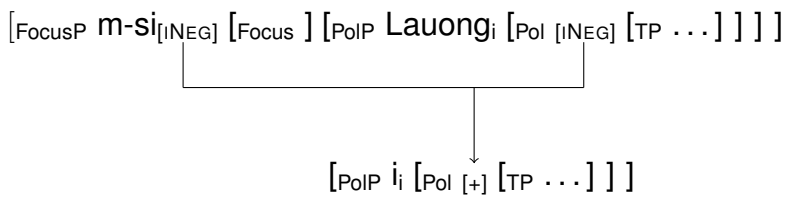
I discuss first the analysis of Wu (2016) and Holmberg and Wu (2018) and how they derive the syntax of the truth-based system of answering and then show why the approach I lay out is superior.

Holmberg & Wu argue that the truth-based system of answering, focusing here on responding to a negative antecedent and not getting into the details of responding to a positive antecedent, is due to the negative response particle being interpretable for negation and heading a clause with a tautoclausal negative polarity head (105). The result is that the two negative elements cancel each other out and yield positive polarity. (105) simplifies the framework of Holmberg & Wu for expository purposes. (103) is repeated in (105).

(105) [Taiwanese] adapted from Holmberg and Wu (2018, p. 19)

a. Lauong bô lim ka-pi nih?
Lauong not have drink coffee Q
‘Does Lauong not drink coffee?’

b. **m-si**, i u (lim (kapi)).
NEG he have drink coffee
‘No (he does)’



They argue that the spell out of extra clausal material is due to the fact that the material in the positive reply does not match the negative antecedent down to the polarity head. Given that the two syntactic structures down to Pol^0 are not equivalent, and that eliding material is necessarily based on having equivalent syntactic structure modulo the restrictions laid out in Merchant (2001), material down to Pol^0 must be spelled out (106). Material that does match, indicated with brackets in (106), may be elided. The question particle *nih* is omitted from (106) and is assumed to head Force^0. That *u* 'have' is spelled out in (106) is due to the fact that it does not match *bô* in the antecedent.

(106)

[PolP Lauongi [Pol [-]] [TP bô (lim ka-pi)]]

[PolP ii [Pol [+]] [TP u (lim ka-pi)]]

One problem with this analysis is that in Taiwanese and Mandarin, there is a pause between the negative response particle and the rest of the clause, indicated by the comma in (103) and (104) (Wu, 2016). Given that I have argued that material after a pause with negative replies is in a separate clause, following Laka (1990), I argue that Holmberg & Wu's account does not work, as it necessarily treats the negative response particle and material after the pause as being tautoclausal, barring the possibility that languages like Taiwanese and Mandarin realize different clausal structure with regard to a pause in negative replies.

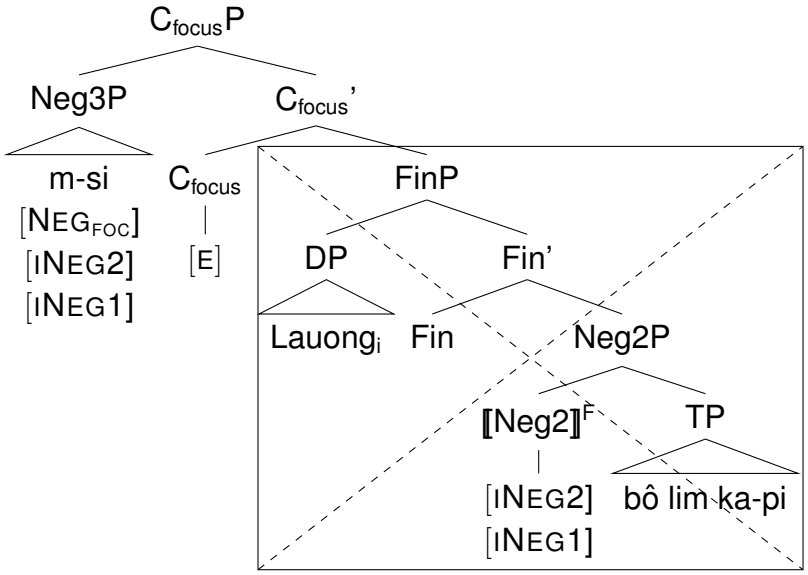
This framework explains the obligatory pause in Taiwanese and Mandarin. The

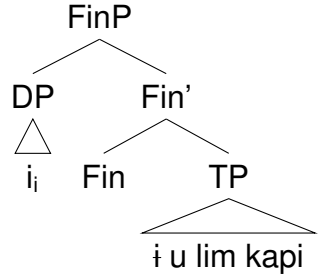
truth-based system is really the result of the negative response particle (a hi focus negator) occurring tautoclausally with sentential negative polarity, but specifically not in a NegP splitting relation. The hi focus negator contrasts the contrastively focused Neg2^0 with positive polarity in the continuation clause (107), the continuation clause being necessary following the syntax of corrections (following Kramer and Rawlins 2010 and references cited therein). (103) is repeated in (107).

(107) [Taiwanese] adapted from Holmberg and Wu (2018, p. 19)

a. Lauong bô lim ka-pi nih?
Lauong not have drink coffee Q
'Does Lauong not drink coffee?'

b. **m-si**, i u (lim (kapi)).
NEG he have drink coffee
'No (he does)'





This framework thus succeeds in deriving the continuation clause realized with

the truth-based answering system specifically in response to a negative antecedent. It is not clear if all languages require a continuation clause in this specific environment, which is specifically what this framework predicts, and I leave this matter to future research if a counterexample exists.

This framework makes the prediction that if a language only realizes the truth-based answering system, then it should follow that the language does not realize NegP splitting, which ensures polarity agreement with a negative antecedent. This further entails that if a language only realizes the truth-based answering system, then it should not realize negative polarity emphasis, which is the result of NegP splitting. This prediction holds for Mandarin. Mandarin, which exhibits the truth-based system of answering (104), does not exhibit negative polarity emphasis (108), where *bu* is used as a negative response particle (see Holmberg 2016). Note that the examples in (108) form a minimal pair with the initial *bu*-less examples in (109) which are grammatical.

(108) Borui Zhang, personal communication

a. *Bu wu bu hui qu
NEG I NEG will go
Intended: 'No I'm not going'

b. *Bu wu mei-you qu
NEG I NEG-PERF go
Intended: 'No I didn't go'

(109) Borui Zhang, personal communication

a. Wu bu hui qu
I NEG will go
'I'm not going'

b. Wu mei-you qu
I NEG-PERF go
'I didn't go'.

I leave whether or not this prediction bears out in other languages exhibiting the

truth-based system of answering to future research.

5.6 Conclusion

In this chapter I provided an analysis of negative polarity emphasis in English with reference to negative polarity emphasis in other languages. I further provided an analysis of negative responses, as I have argued that negative responses involve an elided negative polarity emphasis construction. I showed also that the hi focus negator *no* present in negative polarity emphasis/negative responses is also used with contrastive negation and negative polarity reversal, these facts discussed in Kramer and Rawlins (2010). I argued that there is a single lexical item *no* that has the same semantic import in all environments in which it appears and showed that *no* may arise in tandem with Neg2^0 from a single extended projection of negation, referred to as NegP splitting, or else can arise from a single projection of negation without having undergone NegP splitting.

The important takeaway of this chapter is that negative polarity emphasis is the result of NegP splitting and not an AGREE relation. This is primarily due to the fact that *no* cannot plausibly be analyzed as bearing uninterpretable negative features, and since I have argued that the higher negator must bear uninterpretable features for the AGREE operation to initiate, it cannot be the case that *no* is related to Neg2P via AGREE. The single logical instance of negation arises differently in negative polarity emphasis constructions than in bipartite negation in Sgaw Karen or French. With negative polarity emphasis, this is due to Neg3P and Neg2^0 arising from a single extended projection of negation merged in two places in the clausal spine, and with bipartite negation in Sgaw Karen and French, the single interpretation of negation arises from the negators being related via agreement. As was shown in this chapter for negative polarity emphasis in English and French, NegP splitting

and AGREE can intermingle and result in one instance of interpretable negation.

This chapter provides an account for the diagnostics of negative polarity emphasis discussed in §5.2.1. First, the constituent marking negative polarity emphasis is the same constituent as marking a negative reply. This derives from the fact that negative replies involve an elided negative polarity emphasis construction headed by a hi focus negator. Second, the construction cannot be embedded. I follow Hernanz (2006) in arguing that this is due to the fact that embedded clauses (more specifically, a certain class of embedded clauses, to be discussed for Ojibwe in chapter six) lack $C_{focus}P$ hosting the negative polarity particle (hi focus negator). Third, the ban on extra clausal material not realized in the antecedent clause follows from general principles of isomorphism and ellipsis, similar to the analysis of Poletto and Zanuttini (2013).

These facts are important for understanding the syntax of bipartite negation in Ojibwe, discussed in the next chapter. I will argue that bipartite negation in Ojibwe is the result of NegP splitting. More specifically, bipartite negation in Ojibwe has the same syntax as negative polarity emphasis in English, modulo the fact that bipartite negation must be realized even when the negation does not target an antecedent proposition, and that $Neg2^0$ is overt and interpretable (similar to Italian).

Chapter 6

Bipartite Negation in Ojibwe

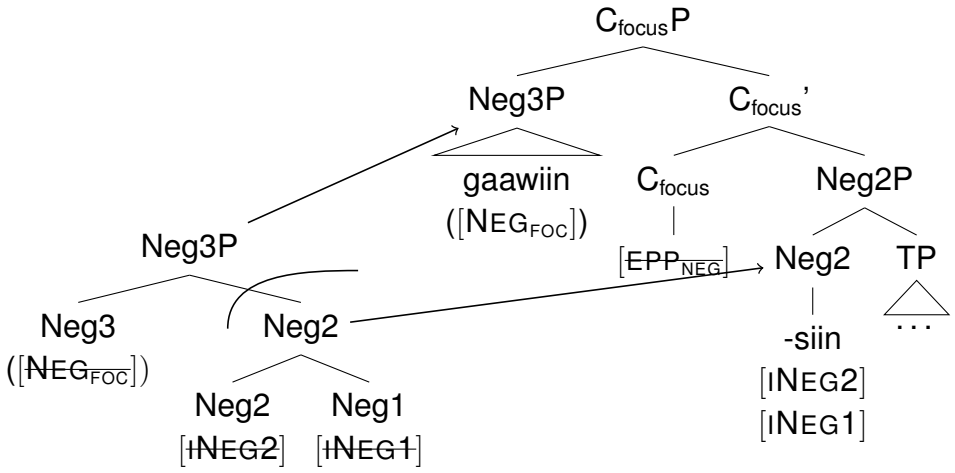
6.1 Introduction

This chapter concerns bipartite negation in Ojibwe, an Algonquian language spoken by approximately 90,000 people in the United States and Canada (Simons and Fennig, 2018). Negation in Ojibwe is described in Valentine (2001) and given an analysis in Déchaine and Wiltschko (2001). Many of the facts discussed here are discussed in these two works. Some of the facts discussed here, to the best of my knowledge, have not been discussed before in the literature, and I note where this is the case. All examples in this chapter are taken from original fieldwork unless otherwise noted.

I argue that bipartite negation in Ojibwe, unlike in French or Sgaw Karen, is the result of NegP splitting (1). I argue that bipartite negation in Ojibwe is similar to negative polarity emphasis in English, modulo the fact that the focus negator *gaawiin* must be merged in Spec,$C_{focus}P$ whenever the CP domain is activated to check off an [EPP_{NEG}] feature in $C_{focus}{}^{0}$ (1), the conditions in which the CP domain is activated to be discussed in this chapter. The convention of using [EPP] features with negation is similar to the framework of de Clercq (2013). When *gaawiin* is

not used to target an antecedent, the feature [NEG$_{FOC}$] is not realized (1), although *gaawiin* is capable of bearing this feature when negation targets an antecedent. The suffix *-siin* is generated in Neg2^0 and is fully interpretable for negation.

(1) NegP Splitting in Ojibwe



With canonical negation in Ojibwe, *-siin* bears the features [INEG1] and [INEG2] and is responsible for imparting sentential negation, as evidenced by the fact that *-siin* alone marks sentential negation in the conjunct order (2), *gaawiin* being prohibited in this environment (more on this fact later).

(2) Begish (***gaawiin**) bi-izhaa.**sii**.g.
1SG.hope NEG here-go.NEG.3SG.CONJ
'I hope he doesn't come.'

Gaawiin's obligatory presence is simply forced by the need to check off [EPP$_{NEG}$]. [EPP$_{NEG}$] is an admittedly ad hoc device to get *gaawiin* to merge in Spec,C$_{focus}$P even when negation does not have to target an antecedent. The relationship between *gaawiin* and Spec,C$_{focus}$P is similar to subjects merging in Spec,TP to check off an [EPP] feature on T^0[1]. The parasitism between C$_{focus}$P and *gaawiin*, the hi

[1]As mentioned in chapter one, the convention of using [EPP] features with negative elements to ensure that negators are merged in the clausal spine is similar to the framework of de Clercq (2013).

focus negator in Ojibwe, is crucial to capturing a number of facts surrounding bipartite negation in Ojibwe. This fact will explain why *gaawiin* is obligatory when $C_{focus}P$ becomes available and prohibited when it is not available, as is the case in a certain type of embedded clause known as the conjunct order, of which I give a syntactic analysis in §6.4.

This chapter is organized as follows. In §6.2 I discuss the empirical facts surrounding bipartite negation in Ojibwe, discussing the syntax and semantics of *gaawiin* and *-siin*, the two negators taking part in bipartite negation. I diagnose these two negators as focus and contradictory negators respectively, highlight many similarities between the syntax of negative polarity emphasis in English and bipartite negation in Ojibwe, and discuss other facts about negative imperatives, negation with coordination, and DP-internal negation. In §6.3 I provide an analysis of where *gaawiin* and *-siin* are merged in the clausal spine. In §6.4 I shift gears and provide an analysis of the conjunct order in Ojibwe, mainly to motivate why *gaawiin* is prohibited from occurring in this environment. I argue that the conjunct order is best understood as a clause lacking projections in the CP domain in the vein of Haegeman (2003, 2006), most importantly lacking $C_{focus}P$. I show that embedded clauses realizing the independent order (typically reserved for matrix clauses) and conjunct order parallel V2 and non-V2 embedded clauses in German respectively, giving weight to the fact that the conjunct order permits main clause phenomenon associated with the CP domain of the clause, embedded V2 being an example of a main clause phenomenon (Heycock, 2006). In §6.5 I provide an analysis of bipartite negation in Ojibwe, motivating a NegP splitting account of the phenomenon. I discuss the account of Déchaine and Wiltschko (2001), the only account of Ojibwe bipartite negation in the minimalist literature that I am aware of, and show that it does not account for all of the facts discussed in §6.2. In §6.6 I contrast bipartite negation in Ojibwe, French, and Sgaw Karen, and give a synopsis of each type

of bipartite negation. I discuss the probable origins of Ojibwe bipartite negation in this section and compare the different grammaticalization patterns of bipartite negation. In §6.7 I show some similarities between the Scandinavian double definite construction and Ojibwe bipartite negation. I do this to open up future avenues of research on doubling as the result of phrasal splitting beyond the domain of negation. §6.8 concludes the chapter.

6.2 Bipartite Negation: The Facts

In negative matrix clauses in Ojibwe two negators, the free morpheme *gaawiin* and the verbal suffix *-siin*[2], impart sentential negation (Déchaine and Wiltschko 2001, Valentine 2001). Both negators are obligatory in matrix clauses. (3-b) is repeated from chapters one and two[3].

(3) a. Ni.mikwendan.
1SG.remember
'I remember.'

b. **Gaawiin** ni.mikwendan.**ziin**.
NEG 1SG.remember.NEG
'I don't remember.'

(4) a. Gii-niimi.
PST-dance
'She danced.'

b. **Gaawiin** gii-niimi.**siin**.
NEG PST-dance.NEG
'She didn't dance.'

I now turn to discussing some more specific facts about negation in Ojibwe.

[2] *-siin* has a number of allomorphs, most of which involve (i) *s* voicing and becoming *z*, (ii) the long vowel *ii* become the short vowel *i*, and (iii) for some speakers, the final *n* being dropped (see Sullivan 2016 for information on dialectal variation with this suffix).

[3] Periods in the examples in this chapter show morpheme boundaries. Hyphens are part of the Ojibwe orthography.

6.2.1 Gaawiin as a Focus Negator

Gaawiin has the status of a focus negator. First, *gaawiin* can be used as a negative response particle (5) (Déchaine and Wiltschko 2001, Valentine 2001).

(5) *p* = listener is hungry

a. Gi.bakade na?
2SG.hungry Q
'Are you hungry?'

b. **Gaawiin**
NEG
'No' ¬p (listener is not hungry)

Ojibwe exhibits the polar-based system of negative responses (recall discussion in chapter five). *Gaawiin* in response to a negative question affirms the negativity of the antecedent proposition. This fact has not been, to the best of my knowledge, pointed out in the literature.

(6) *p* = listener is hungry

a. **Gaawiin** ina gi.bakade.**siin**?
NEG Q 2SG.hungry.NEG
'Aren't you hungry?'

b. **Gaawiin**
NEG
'No' = ¬p (listener is not hungry)

In chapter five I hypothesized that if a language realizes bipartite negation with negative polarity emphasis, then it should conform to the polar-based answering system. The reasoning is that the focus negator is merged in tandem with sentential negation, such that the two constituents originate from a single extended projection of negation that has undergone splitting. As negative replies, specifically negative response particles used in isolation, realize elided negative polarity emphasis, it follows that there is sentential negation present in the elided portion

of the clause, sentential negation imparted by *-siin*.

Gaawiin passes other diagnostics of focus negators. It is used as a contrastive negator (7)[4].

(7) *Gaawiin* as a contrastive negator

a. **Gaawiin** niin, mii eta go Chris
NEG me, but Chris
'not me, but Chris'

b. **Gaawiin** niin, wiin.eta
NEG me, her.but
'not me, but her'

Gaawiin is used as contrastive negation when sentential negation is present (recall discussion in chapter five). This fact has not been, to the best of my knowledge, noted in the literature.

(8) a. A: Joyce **gaawiin** bakade.**siin**.
Joyce NEG hungry.NEG
'Joyce isn't hungry.'

b. B: **Gaawiin**, mii eta go Chris bekade.**si**.g.
NEG, but Chris hungry.NEG.3SG.CONJ
'No, Chris isn't hungry.'

It is not clear if *gaawiin* is used with negative polarity reversal, so I do not comment on this here.

Furthermore, *gaawiin* is used in negative polarity emphasis constructions (9-b). Negative polarity emphasis constructions are equivalent to canonical bipartite negation constructions.

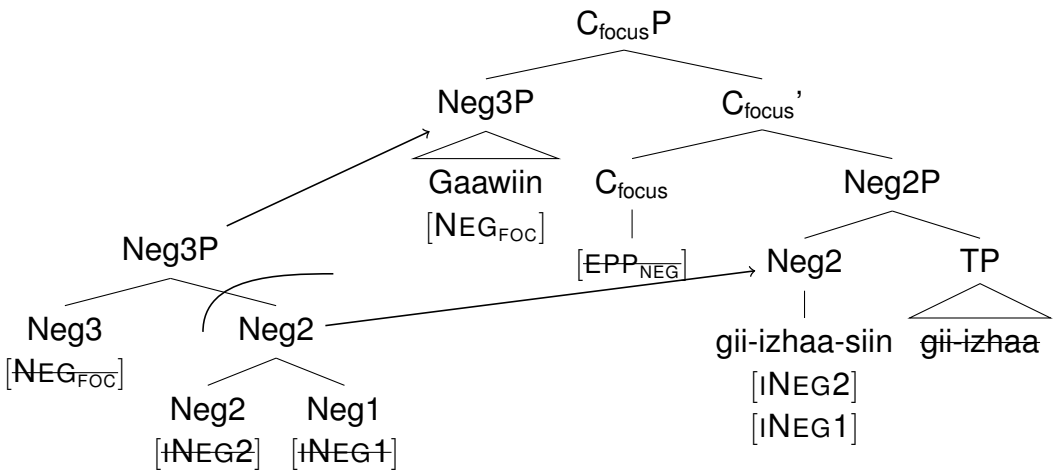
(9) a. Gii-izhaa zaaga'igan.ing bijiinaago.
PST-go lake.LOC yesterday
'She went to the lake yesterday.'

[4]Valentine (2001) notes that *gaawiin* is used in contrastive negation constructions, although he gives full sentences for the constructions rather than the fragments in (7).

b. **Gaawiin** gii-izhaa.**siin**.
NEG PST-go.NEG
'No she didn't.'

A question arises as to why I treat (9-b) as being an example of negative polarity emphasis rather than just analyze it as canonical sentential negation targeting an antecedent proposition, meaning specifically that focus negation is not activated in (9). I argue that sentences like (9-b) are ambiguous between canonical negation and negative polarity emphasis readings, the readings being disambiguated by context. This is primarily due to the fact that *gaawiin* and *-siin* realized in tandem exhibits the syntax of negative polarity constructions. The difference between canonical negation and negative polarity emphasis is that in the latter construction, *gaawiin* bears the [NEG$_{FOC}$] feature necessary for targeting antecedents (10), whereas this is not the case with canonical negation (1). (10) diagrams (9-b), noting that the arguments for realizing NegP splitting in Ojibwe are forthcoming.

(10) Negative Polarity Emphasis in Ojibwe



That *gaawiin* and *-siin* are realized in all matrix clauses is evidence that these constituents together do not always impart negative polarity emphasis. It is implausible to treat every negative matrix clause as denoting negative polarity emphasis. Furthermore, *gaawiin* and *-siin* can be uttered in a matrix clause in an out-of-the-

blue scenario (11), the out-of-the-blue scenario signalling that the utterance does not target an antecedent proposition[5].

(11) Walking down the street you suddenly realize that you didn't lock the door. You then utter:

a. **Gaawiin** in.gii-kashkaabika.**siin** ishkwaandem!
NEG 1SG.PST-lock.NEG door
'I didn't lock the door!'

Ojibwe contrasts with English in that English does not felicitously allow the combination of a hi focus negator and a hi contradictory negator, which in English is in agreement with a lo focus negator, in an out-of-the-blue scenario. Compare (12) to (11).

(12) Walking down the street you suddenly realize that you didn't lock the door. You then utter:

a. #**No** I did **not** lock the door!

I assume that in English (12) could impart the semantics of canonical negation similar to Ojibwe, but this construction is not used because in English canonical negation can be imparted simply by using sentential negation without *no*. Thus, (12) is infelicitous on pragmatic and not semantic grounds. It could also be the case that *no* in English always must bear $[\text{NEG}_{\text{FOC}}]$ necessary for targeting antecedents, and I leave this as an open possibility.

Gaawiin does not impart emphatic negation. Emphatic negation requires the constituent *mii* (Fairbanks, 2016), sometimes appearing with other discourse particles (13-b)[6]

[5]Consultants were given the prompt in (11) in English.

[6]Fairbanks (2016) gives the following minimal pair (13). He notes that (13-b) is more emphatic than (13-a).

(13) adapted from Fairbanks (2016, p. 69)

(14) a. **Gaawiin** in.gii-nibaa.**siin** dibikong.
NEG 1SG.PST-sleep.NEG last night
'I didn't sleep last night.'

b. Mii go geget **gaawiin** nin.gii-nibaa.**siin** dibikong.
really NEG 1SG.PST-sleep.NEG last night
'I really didn't sleep last night.'

That (14-b) imparts emphatic negation is evidenced by the fact that consultants accept (15) as a better continuation to (14-a) than to (14-b) (recall discussion in chapters two and four).

(15) Maagizhaa ingo-diba'igan in.gii-nibaa.
maybe one hour 1SG.PST-sleep
'Maybe I slept one hour.'

The evidence in (7)-(9) suggests that *gaawiin* is a focus negator, even though it is used in matrix clauses realizing canonical negation. This is another puzzle requiring explanation. I offer an analysis of the obligatory nature of *gaawiin* in §6.4. I note that Ojibwe does not make a distinction between hi and lo focus negation, as evidenced by the fact that *gaawiin* is used in the 'not X, but Y' construction (5), and that it marks a negative reply to an answer (7).

6.2.2 -siin as a Contradictory Negator

I argue that *-siin* is a contradictory negator. The relevant diagnostic for *-siin* being a contradictory negator is that it imparts sentential negation on its own (16), specifically in the conjunct order.

a. **Gaawiin** ni.gikendan.**ziin**.
NEG 1SG-know.NEG
'I don't know.'

b. **Mii gaawiin** ni.gikendan.**ziin**.
mii NEG 1SG-know.NEG
'I have no idea.'

(16) Giishpin bakade.**si**.wan, maanoo wii.nitam daa-wiisini.
if hungry.NEG.2SG.CONJ, let 3SG.take turn MODAL-eat
If you aren't hungry, you should let her eat first.

It was shown previously that *-siin* marks sentential negation with *gaawiin* in matrix clauses, although I argue that canonical negation is simply interpreted by the features [iNEG1] and [iNEG2] on Neg2^0, headed by *-siin*. As mentioned previously, with canonical negation in matrix clauses, *gaawiin* does not add to the semantics of the sentence, its obligatory presence forced by the presence of the [EPP$_{NEG}$] feature needing to be checked off.

Similar to focus negation, contradictory negation does not come in hi and lo varieties. The equivalent of lo contradictory negation is conveyed by *-siin* modifying a nominalized verb phrase (17-b) appearing in the conjunct order, *gaawiin* being prohibited in these environments due to the aforementioned restriction (17-c). Note that roots in Ojibwe are verb-like (see Valentine 2001), and the fact that *-siin* is used in this environment is due to the fact that predicate terms, which lo contradictory negators modify, are built on verbal roots[7].

(17) a. wiinawaa gaa-nagamo.waad
they NOM-sing-3SG.CONJ
'those who sing' (singers)

b. wiinawaa gaa-nagamo.**sii**.waad
they NOM-sing.NEG.PL.CONJ
'those who don't sing' (non-singers)

c. (***gaawiin**) wiinawaa gaa-nagamo.**sii**.waad
NEG they NOM-sing.NEG.3PL.CONJ
Intended: 'those who don't sing' (non-singers)

It is not clear if there is some systematic reason why Ojibwe does not distinguish between hi and lo versions of negators, including focus and contradictory negators, and whether or not there is some connection between this fact and the clausal

[7]Thank you to Claire Halpert for pointing this out to me.

structure of Ojibwe. I set this matter aside.

6.2.3 Parallels to Negative Polarity Emphasis

In this section I highlight some of the parallels between the syntax of negative polarity emphasis in English and canonical bipartite negation in Ojibwe. I do this to motivate an analysis in §6.4 that bipartite negation in Ojibwe realizes a similar syntactic structure to negative polarity emphasis in other languages. One major difference is that Neg2^0 is interpretable in Ojibwe but uninterpretable in English.

Gaawiin was shown in §6.2.1 to be a focus negator based on diagnostics related to it being a negative response particle and a contrastive negator. *Gaawiin* thus parallels *no* in English in being a focus negator.

In Ojibwe, both *gaawiin* and *-siin* are obligatory in the independent order. (3-b) is repeated and modified in (18).

(18) *(**Gaawiin**) ni.mikwendan.*(**ziin**).
NEG 1SG.remember.NEG
'I don't remember.'

No and *not* in English, the latter being used to value Neg2^0 (different from *-siin* which is Neg2^0) are obligatory with negative polarity emphasis (19).

(19) *(**No**) I do *(**not**)!

Recall from chapter five that negative polarity emphasis resists embedding (20) (in English and in other languages). (20-b) is repeated from chapter five.

(20) a. If it does**n't** rain, you must water the flowers.
b. *If **no** it does**n't** rain, you must water the flowers.

More specifically, *no* and not *not* is prohibited from being embedded. Bipartite negation in Ojibwe is similar in this regard. More specifically, bipartite negation is

not realized in the conjunct order, which is realized in embedded clauses. In the conjunct order, exhibited by the embedded clause licensed by *begish* 'I hope' in (21), *gaawiin* is prohibited, parallel to *no* in (20-b). (2) is repeated in (21).

(21) Begish (***gaawiin**) bi-izhaa.**sii**.g.
1SG.hope NEG here-go.NEG.3SG.CONJ
'I hope he doesn't come.'

In summary, negative polarity emphasis in English, comparable to negative polarity emphasis in other languages, realizes a focus negator as the structurally highest negator in tandem with Neg2^0, is such that both the focus negator and Neg2^0 are obligatory, and the focus negator is prohibited in embedded clauses. These same facts are parallel to bipartite negation in Ojibwe, showing that there is a deep connection between the negative polarity emphasis construction and bipartite negation in Ojibwe.

6.2.4 Other Facts

This section highlights other facts about bipartite negation in Ojibwe, some of which are not directly important to the analysis I give in §6.4, but are discussed as some of the facts, prima facie, pose an issue to my analysis.

It is possible to realize one instance of *gaawiin* and two instances of *-siin* in clauses containing coordinated verb phrases (22). I thank Michael Sullivan for pointing this information out to me. Consultants accept *gaawiin* optionally before the second verb phrase.

(22) **Gaawiin** niimi.**siin** miinawaa (**gaawiin**) nagamo.**siin**.
NEG dance.NEG and NEG sing.NEG
'She doesn't dance and she doesn't sing.'

The data here seems to convey that multiple instances of *-siin* can occur with one instance of *gaawiin* in a matrix clause, and that *gaawiin* is optional in specific

environments. I discuss negation with coordination in §6.4 and show that the data in (22) does not pose an issue for my analysis. I argue that two *gaawiin*'s appearing with two *-siin*'s involve coordination of CPs, and that one *gaawiin* appearing with two *-siin*'s involve coordination of AgrPs (as opposed to just TPs, more on the distinction between AgrP and TP in §6.4).

It is possible for *gaawiin* to appear in the conjunct order. In these cases, it is always adjacent to a quantifier. I thank Michael Sullivan for pointing this out to me. (23) is courtesy of Michael Sullivan and has been backtranslated with consultants who indicated that *gaawiin* is optional here.

(23) In.daa-izhaa giishpin (**gaawiin**) awiya gaawashkwebiid
1SG.MODAL-go if NEG anybody who is drunk
ayaa.**si**.g.
is in a certain place.3SG.CONJ
'I would go if there are no drunks there.'

(24) Giishpin (**gaawiin**) awiya bi-dagoshin.**zii**.g, da-minwendam.
if NEG anybody here-arrive.NEG.3SG.CONJ FUT-happy
'If nobody arrives, he will be happy.'

As pointed out to me by Michael Sullivan, *gaawiin* appears to be a negative quantifier modifying a noun. I argue that *gaawiin* in these instances is DP-internal, and thus the constraint on *gaawiin* appearing in the conjunct order only applies to *gaawiin* being merged in the clausal spine. I assume that Ojibwe realizes something like negative concord in the sense that a negative quantifier and sentential negation output to one instance of negation, although I do not say more about this issue. That *gaawiin* can be left out of the derivation and convey the same information is due to the fact that sentential negation is present with the quantificational expression *awiya* 'anybody.'

Negative imperatives in Ojibwe realize bipartite negation with two constituents, *gego* and the suffix *-ken* (Valentine 2001, Déchaine and Wiltschko 2001).

(25) **Gego** izhichige.**ken** i'iw.
NEG.IMP do.NEG.IMP that
'Don't do that!'

I do not take up an analysis of negative imperatives in this thesis. I assume that my analysis of canonical bipartite negation carries over to negative imperatives, modulo the fact that there are two different constituents conveying negation.

6.3 Syntax of Gaawiin and -siin

6.3.1 The Syntax of Gaawiin

Gaawiin appears in all instances before the verbal complex, which entails that it always precedes *-siin*, given that *-siin* is a verbal suffix. *Gaawiin* appears either before or after the subject of the sentence, as illustrated in (26) and (27).

(26) a. Inini **gaawiin** o.gii-waabam.aa.**siin** ikwe.wan.
man NEG 3SG-see.DIR.NEG woman.OBV
'The man didn't see the woman.' SUBJECT > GAAWIIN

b. **Gaawiin** inini o.gii-waabam.aa.**siin** ikwe.wan.
NEG man 3SG-see.DIR.NEG woman.OBV
'The man didn't see the woman.' GAAWIIN > SUBJECT

(27) a. Ikwe **gaawiin** o.gii-amw.aa.**siin** bakwezhigan.an.
woman NEG 3SG.PST-eat.DIR.NEG bread.OBV
'The woman didn't eat the bread.' SUBJECT > GAAWIIN

b. **Gaawiin** ikwe o.gii-amw.aa.**siin** bakwezhigan.an.
NEG woman 3SG.PST-eat.DIR.NEG bread.OBV
'The woman didn't eat the bread.' GAAWIIN > SUBJECT

It is likely that discourse constraints determine the position of the subject, although I do not comment on this further. I assume in §6.4 that the subject in (26-a) and (27-a) is likely occupying Spec,C_{topic}P dominating C_{focus}P and in (26-b) and (27-b) the subject is likely occupying Spec,FinP. Given this analysis, it will be shown that

the position of the subject preceding *gaawiin* in (26-a) and (27-a) does not pose an issue for arguing that *gaawiin* appears in Spec,C_{focus}P.

As was shown in (6), repeated in (28), *gaawiin* may precede the polar question marker *ina*.

(28) *p* = listener is hungry

a. **Gaawiin** ina gi.bakade.**siin**?
NEG Q 2SG.hungry.NEG
'Aren't you hungry?'

b. **Gaawiin**
NEG
'No' = ¬p (listener is not hungry)

Prima facie, the order of *gaawiin* > *ina* seems to indicate that *gaawiin* is structurally higher than the polar question marker, which is most plausibly analyzed as heading Force^0 high in the left periphery of the clause. Note, however, that *ina* always appears in the second position of the clause (Valentine, 2001), regardless of the category of the constituent preceding it. This constituent can be a verbal complex (29-a) or an adverbial element (29-b).

(29) (Michelle Goose, lecture notes)

a. Gi.goshkoz ina?
2SG.awake Q
Are you awake?

b. Oodena.ang ina gid.izhaa?
town.LOC LOC 2SG.go
'Are you going to town?'

I assume that in Ojibwe, *ina* undergoes a post-syntactic lowering operation as per Embick and Noyer (2001)[8]. It is possible that the *ina*-2 effect is derived via movement to Spec,ForceP, although this seems unlikely for *gaawiin* given that I

[8]This is different from the lowering operation that *tə1* undergoes in Sgaw Karen which occurs in the syntax.

argue that *gaawiin* is base-merged in Spec,C_{focus}P, and Spec,C_{focus}P-Spec,ForceP movement would be problematic given potential issues with criterial freezing (Rizzi, 2007).

A test that was given in previous chapters to determine that a constituent occupies Spec,C_{focus}P is that the constituent cannot appear simultaneously with wh-elements, the idea that both of these constituents compete for the same position. This test is not easily applicable to Ojibwe, given that wh-elements appear with the conjunct order (Valentine, 2001) (30). As *gaawiin* cannot appear in the conjunct order, it can be stated that it is not compatible with wh-constructions for this reason, and not necessarily because it is competing for the same location as a wh-element.

(30) Aandi gii-izhaa.**si**.wan bijiinaago?
where PST-go.NEG.2SG.CONJ yesterday
'Where didn't you go yesterday?'

It is not clear why wh-elements take the conjunct order. I discuss this issue in relation to my analysis of the conjunct order in §6.4.

6.3.2 The Syntax of -siin

The position of *-siin* within the Ojibwe verbal morphology template is such that it follows what are known as theme signs in the literature and precedes agreement morphology[9] (Valentine 2001, Oxford 2014).

(31) waabam aa sii wag
see THEME SIGN:DIRECT NEG AGREEMENT: 1SG>3SG
'I do not see him/her' (conjunct form)

adapted from Valentine (2001, p. 299), cited in Oxford (2014, p. 71)

The agreement marking in (31) signals that the subject is the first person and the

[9]The orthography is changed from Valentine (2001) to reflect the data from the dialect I primarily work with (Southwestern Ojibwe).

object the third person. This agreement marker is used specifically in the conjunct order. The direct theme sign encodes that the object being acted on is either the third person or fourth person (obviated third person, see Lochbihler 2008 for an overview). Agreement is a complex matter in Ojibwe, and given that analyzing Ojibwe morphosyntax could easily be the topic of another thesis, I give only a cursory discussion of this phenomenon here.

-siin's position is the same in both the independent and conjunct orders. In the independent order, unlike the conjunct order (31), pre-verbal clitics and prefixes appear before tense markers which are also pre-verbal (Valentine, 2001) (32)[10].

(32) o gii- zaagijiwidoo siin
3SG PST take out NEG
'he didn't take out'

In §6.4, I assume that Neg2P, headed by *-siin*, dominates TP, given the cross-linguistic tendency for this configuration. I do not provide extensive argumentation that this is the case, given the complexities of verbal inflection in Ojibwe[11]. Given that T^0 is headed by a prefix in Ojibwe (Lochbihler and Mathieu, 2008), and that Neg2P is headed by a suffix, it cannot be safely established via the mirror principle (Baker, 1985) that Neg2P dominates TP. Assuming that theme signs are realized in the *v*P domain, as argued for in Oxford (2014), possibly heading something like VoiceP, it can be safely established that *-siin* dominates VoiceP or something similar. Regarding agreement suffixes which follow *-siin*, I assume, following McGinnis (1995) and Oxford (2014), that these suffixes are associated with some projection higher than TP, which is in accordance with the order of Neg2P $>$ TP.

[10] *Gaawiin* is left out of (32) because it is not part of the verbal inflection.
[11] This facts holds for Algonquian languages in general, see Oxford (2014).

6.4 The Conjunct Order: An Analysis

In this section I offer an analysis of the conjunct order with the goal of establishing why *gaawiin* is prohibited from appearing in it. I argue that the conjunct order does not permit main clause phenomena (Hooper and Thompson, 1973), which in other languages includes focus and topic fronting, as well as embedded V2 in the Germanic languages (Heycock, 2006). I argue, following Haegeman (2003, 2006) and similar arguments discussed in Hernanz (2006), that clauses not permitting main clause phenomena lack $C_{focus}P$ (parallel to FocusP in Haegeman's work), accounting for why *gaawiin* cannot be realized in the conjunct order. The difference between the independent and conjunct orders is summarized in (33)[12].

(33) Left periphery, **independent order**: $C_{force}P > C_{topic}P > C_{focus}P >$ FinP
Left periphery, **conjunct order**: FinP

I do not analyze the reason why certain clauses do not permit main clause phenomena. The standard analysis is that factive verbs do not permit main clause phenomena in their complement clause (Hooper and Thompson, 1973), although this view has been challenged (Bentzen 2009, 2010, Antomo 2012). As these facts go beyond the scope of this thesis, I do not discuss this matter further.

The connection between the lack of $C_{focus}P$ and negative polarity particles not appearing in the conjunct order is similar to the analysis of Hernanz (2006) where the positive polarity particle *bien* cannot be embedded in Spanish (34)[13]. (34) is repeated from chapter five.

(34) adapted from Hernanz (2006, p. 129) [Spanish]

a. Le aconsejaron que (***bien**) fumara.
they advised that well to smoke

[12] I leave out potential iterated TopicPs in (33) (as discussed in Rizzi 1997) for expository purposes.

[13] The translations in (34) are my own.

'They advised him to smoke.'

b. Lamento que (***bien***) sean ricos.
I regret that well are rich
'I regret that they are rich.'

c. Es necesario (***bien***) decir la verdad.
it is necessary well to tell the truth
'It is necessary to tell the truth.'

Hernanz argues that positive polarity particles occupy Spec,FocusP and argues, following Haegeman (2003), that embedded clauses lack this projection. Positive polarity particles in Spanish cannot be embedded given that the phrase hosting them is not present in embedded clauses. I argue that *gaawiin* is prohibited in the same manner, as I argue that $C_{focus}P$ is not present in the conjunct order.

Verbs[14] taking the conjunct order in their complement clauses include *gikenim* 'know him/her' (35) and *gikendan* 'know it' (36), the two verbs sharing the same root *gekin* 'know,' *mayagendam* 's/he feels strange' (37), and *minjinawezi* 's/he regrets' (38).

(35) In.gikenim.aa minwendan.**zi**.g biboong.
1SG.know.DIR like.NEG.3SG.CONJ winter
'I know she doesn't like winter.'

(36) Ni.gikend.aan imaa ayaa.**si**.g.
1SG.know.DIR there is in a certain place.NEG.3SG.CONJ
'I know that she isn't there.'

(37) Mayagendam imaa ayaa.**si**.**g**.
is strange there is in a certain place.NEG.3SG.CONJ
'It is strange that she isn't there.'

(38) Gii-minjinawezi gii-izhaa.**si**.g iwidi.
PST-regret PST-go.NEG.3SG.CONJ over there
'He regretted that he didn't go over there.'

[14] I use the convention, common in the literature on Ojibwe, to gloss verbs in the third person, given that verbs in third person lack inflectional morphemes.

Valentine (2001) notes that not all embedded clauses take the conjunct order. Some verbs license the independent order in their complement clauses and require *gaawiin* when sentential negation is present in the complement clause. These verbs include *inendam* 's/he thinks' (39) and *waabandan* 'see it' (40), amongst others.

(39) Ind.inendam *(**gaawiin**) da-bi-izhaa.**siin**.
1SG.think NEG FUT-here-go.NEG
'I think he will not come.'

(40) In.gii-waaband.aan *(**gaawiin**) o.gii-zaagijiwidoo.**siin** ziigwebinigan.
1SG.PST-see.DIR NEG 3SG.PST-take.out.NEG trash
'I see that he didn't take out the trash.'

Onzaam 'because' licenses the independent order in its complement clause (41) (Valentine, 2001). Other adjunct clauses appear in the conjunct order, for example, *giishpin* 'if' clauses (16).

(41) a. **Gaawiin** ni.wiisini.**siin** onzaam **gawiin** ni.bakade.**siin**.
NEG 1SG.eat.NEG because NEG 1SG.hungry.NEG
'I'm not eating because I'm not hungry.'

b. **Gaawiin** o.mawinzi.**siin**.an miin.an onzaam **gaawiin**
NEG 3SG.pick berres.NEG.PL blueberry.PL because NEG
o.mino-ayaa.**siin**.
3SG.feel well.NEG
'She didn't pick blueberries because she wasn't feeling well.'

The same restricted class of verbs that take the independent order in their complement clauses are the same verbs that license main clause phenomena in other languages. For example, *think* and *see* permit embedded topic fronting in their complement clauses in English (42), and their corresponding verbs in German *denken* and *sehen* permit embedded V2, an example of a main clause phenomenon (Heycock, 2006) in their complement clauses (43)[15].

[15]The gloss and translations in (43) are my own.

(42) a. I think that this book, you will like.

b. I see that this book, Mary wants.

(43) a. Ich dachte, du kannst es mir erklären.
I thought you could it to me explain
'I thought you could explain it to me.' Hein (1984)

b. Ich sehe, du hast das Abendblatt in der Hand.
I see you have the evening paper in the hand
'I see you have the evening paper in your hand.' Wunderlich (1971)

The same verbs in Ojibwe that take the conjunct order in their complement clauses resist topic and focus fronting in English and embedded V2 in German. Compare (35)-(37) with (44) and (45)[16].

(44) a. *I know that the film, the children have seen.

b. *John regrets that this book, Mary read. Antomo (2012, p. 2)

c. *It is strange that this book, it has all the recipes in it.

Hooper and Thompson (1973, p. 479), cited in Antomo (2012, p. 2)

(45) a. *Ich weiss, dass die Kinder haben den Film gesehen.
I know, that the children have the film seen
Intended: 'I know that the children have seen the film.'

Schwartz and Vikner (1996, p. 12)

b. *Peter bereut, er hat geraucht.
Peter regrets he has smoked
Intended: 'Peter regrets that he has smoked.' Antomo (2012, p. 2)

Regarding adjunct clauses, *because* in English permits topic fronting (46) and *weil* 'because' in German permits embedded V2 (47) in their respective complement clauses[17].

(46) Mildred drives a Mercedes because her son, he owns stock in Xerox.

Antomo (2012, p. 4)

[16]The translations in (45) are my own.
[17]The glosses in (47) is my own.

(47) Jenny studiert in Athen, weil sie mag griechisches Essen.
Jenny studies in Athens, because she likes Greek food
'Jenny is studying in Athens because she likes Greek food.'

adapted from Antomo (2012, p. 4)

Most other adverbial clauses do not allow main clause phenomena. *After* and *nachdem* 'after' in German do not permit topic fronting (48) or embedded V2 respectively (49)[18].

(48) *Mildred bought a Mercedes after her son, he purchased stock in Xerox.

adapted from Antomo (2012, p. 4)

(49) *Jenny studierte in Athen, nachdem Daniel war in Boston.
Jenny studied in Athens after Daniel was in Boston
'Jenny studies in Athens after Daniel was in Boston.'

In Ojibwe, *ishkwaa* 'after' takes the conjunct order in its complement clause (50), unlike *onzaam* 'because' which takes the independent order (41).

(50) ishkwaa-maamigipinii.waad iwidi
after-pick potatoes.3PL.CONJ over there
'when they finish picking potatoes over there'

adapted from Nichols (1980, p. 153), cited in Sullivan (2016, p. 139)

The data here suggest that the conjunct order in Ojibwe associates with a class of embedded clauses in other languages, specifically those that do not permit clause phenomena associated with $C_{topic}P$ and $C_{focus}P$. Adopting the analysis of Haegeman (2003, 2006), it follows that clauses not permitting main clause phenomena lack $C_{topic}P$ and $C_{focus}P$, the conjunct order not projecting these phrases. Given that C_{focus} is associated with hi focus negators cross-linguistically, given arguments made in previous chapters, and that *gaawiin* is a hi focus negator, it follows that *gaawiin* does not appear in the conjunct order because the phrase that it merges

[18]The translation in (49) is my own.

with is not projected in this clause type.

This analysis differs from Campana (1996) and Brittain (2001) where it is argued that the conjunct order in Alonquian languages in general realize the CP domain and that the verb moves to C^0. Sullivan (2016) argues that the conjunct order in Ojibwe projects a full left periphery in the vein of Rizzi (1997) and that the verb raises to different possible projections in the left periphery. The motivations for these frameworks are somewhat complex and I do not have time to issue specific rebuttals to each framework. Suffice it to say, the idea that the conjunct order projects a full CP domain does not comport with the fact that, cross-linguistically, the conjunct order associates with embedded clauses argued to lack most (or possibly all) of the projections in the CP domain.

My analysis of the conjunct order prima facie does not extend to wh-questions. Recall that wh-questions appear in the conjunct order in matrix clauses. (30) is repeated in (51).

(51) Aandi gii-izhaa.**si**.wan bijiinaago?
where PST-go.NEG.2SG.CONJ yesterday
'Where didn't you go yesterday?'

It is not clear how to analyze (51). I discuss two possibilities. First, it could be the case that (51) is biclausal, where the wh-element takes the conjunct order as its complement. This possibility is in line with biclausal analyses of wh-questions in other languages, for example Malagasy in Law (2005), and analyses which take the wh-element to be a cleft taking a CP as its complement[19] (Sabel and Zeller, 2006). Second, it could be the case that wh-elements target a different projection than Spec,C_{focus}P, perhaps something lower than Spec,C_{focus}P. Rizzi (2001) offers Spec,Int(errogative)P as a location for wh-movement, although this projection is above Spec,C_{focus}P, which would be assumed to be stripped away in the conjunct

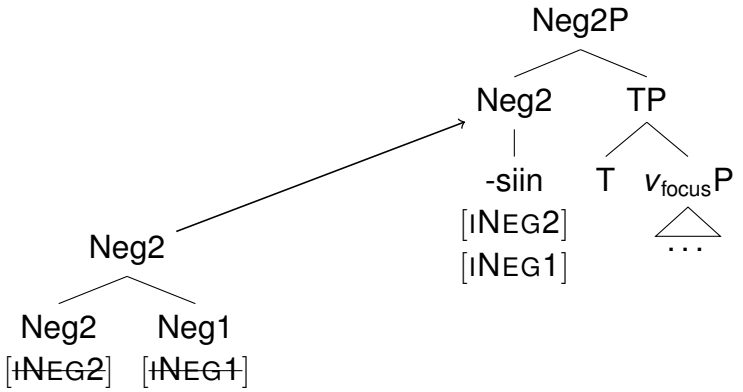
[19]Thank you to Claire Halpert for pointing out to me that wh-questions in Ojibwe could be clefts.

order in this analysis. Lochbihler and Mathieu (2008) proposes that wh-elements appear in Spec,CP in Ojibwe, and that the conjunct order on the verb is the result of wh-agreement. Assuming Spec,CP in their framework refers to either Spec,C_{force}P or Spec,C_{focus}P, their analysis is incompatible with mine. I leave a proper analysis of wh-questions to future research. I stress that the fact that the conjunct order parallels embedded clauses lacking main clause phenomena in other languages is strong evidence that the conjunct order lacks Spec,C_{focus}P, and this in turn provides a reasonable explanation for why *gaawiin* does not appear in the conjunct order, given that *gaawiin* is a hi focus negator that can only merge in Spec,C_{focus}P in the clausal spine.

6.5 Bipartite Negation is NegP Splitting

I argue that bipartite negation in Ojibwe is the result of NegP splitting. NegP and TP are first built in separate workspaces. The clausal spine is built to TP and the negation phrase to Neg2^0. Neg2^0 then merges with TP (52).

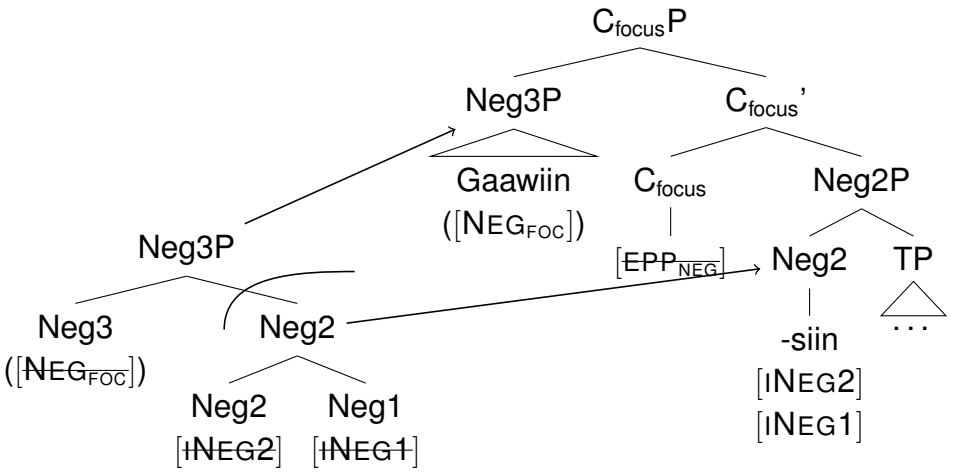
(52) Neg2^0 Merges with TP



The clausal spine is built to the CP domain specifically in the independent order. I argue that C_{focus}P is activated when the negation phrase is present in the numer-

ation. $C_{focus}{}^0$ bears [EPP_{NEG}]. In order to have this feature checked off, the negation phrase must be built to Neg3P. Neg3P then merges in Spec,C_{focus}P (53). I assume that only Spec-elements satisfy checking off [EPP_{NEG}]. The feature [NEG_{FOC}] is optionally present on Neg3^0.

(53) Neg3P Merges in Spec,C_{focus}P



Bipartite negation in Ojibwe is derived in the same manner as negative polarity emphasis in English. Ojibwe is different in that Neg2^0 is interpretable for negation and does not initiate AGREE. Ojibwe is also different in that $C_{focus}{}^0$ bears [EPP_{NEG}] when sentential negation is present. As mentioned previously, Ojibwe and English differ in that a hi focus negator is felicitous with canonical negation in Ojibwe (54) but not in English (55). (11) and (12) are repeated in (54) and (55) respectively.

(54) Walking down the street you suddenly realize that you didn't lock the door. You then utter:

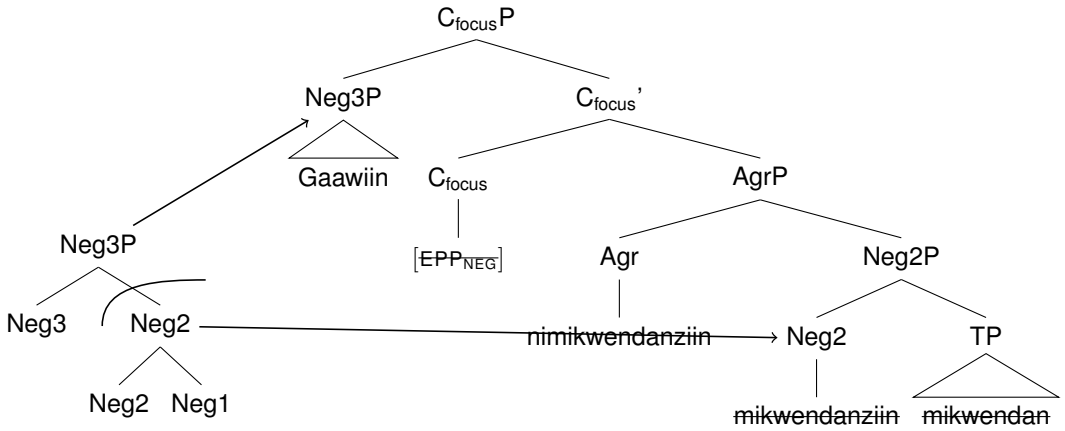
a. **Gaawiin** in.gii-kashkaabika.**siin** ishkwaandem!
NEG 1SG.PST-lock.NEG door
'I didn't lock the door!'

(55) Walking down the street you suddenly realize that you didn't lock the door. You then utter:

a. **#No** I did **not** lock the door!

The fact that both negators are obligatory in Ojibwe matrix clauses (54) is due to the fact that *-siin* must be merged in the clausal spine to mark sentential negation. *Gaawiin* must be merged to check off [EPP_{NEG}]. (56) diagrams (55), leaving out the features of *gaawiin* and *-siin* to enhance readability.

(56) **Gaawiin** nimikwendan**ziin**.



I assume that the verb *mikwendan* 'remember' moves up to an AgrP above Neg2P to pick up the first person singular clitic *ni*, although nothing crucial hinges on this analysis. It is likely that the analysis of agreement in Ojibwe requires a different analysis, although I set this matter aside[20].

Recall that I have argued that negative polarity emphasis in Ojibwe bears the same syntax as canonical negation. (9) is repeated in (57).

(57) a. Gii-izhaa zaaga'igan.ing bijiinaago.
PST-go lake.LOC yesterday
'She went to the lake yesterday.'

b. **Gaawiin** gii-izhaa.**siin**.
NEG PST-go.NEG
'No she didn't.'

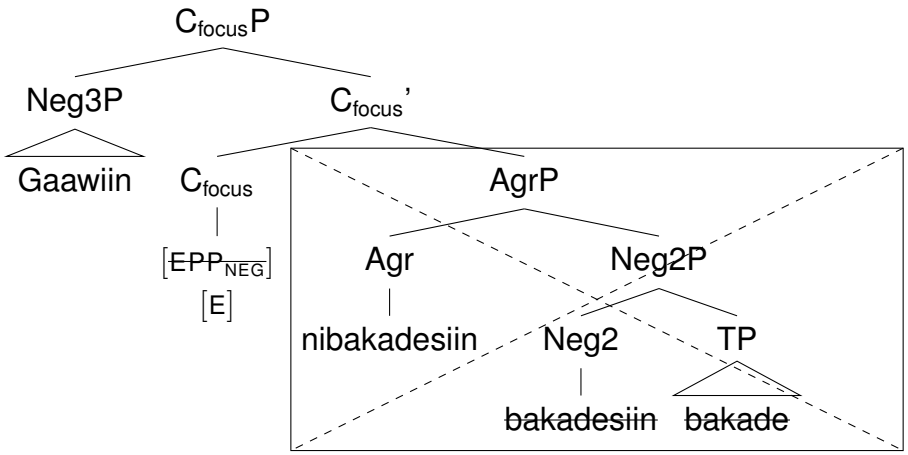
[20] See Oxford 2014 for a thorough analysis of the morphosyntax of Algonquian languages, including Ojibwe.

(57-b) targets the antecedent proposition in (57-a), and thus I believe this constitutes an instance of negative polarity emphasis. When the sentence in (57-b) is interpreted as negative polarity emphasis, *gaawiin* bears the feature [NEG$_{FOC}$] responsible for targeting antecedents. When (57-b) is interpreted as canonical negation, then *gaawiin* does not bear [NEG$_{FOC}$].

This analysis allows us to capture the fact that *gaawiin* has the functions of a hi focus negator, as discussed previously, while being realized in situations where it does not appear to have this function. When *gaawiin* is used in isolation as a negative response particle, it takes the antecedent prejacent form of the question as its complement, which undergoes ellipsis. (5) is repeated and adapted in (58)[21].

(58) a. Gi$_i$bakade na?
2SG.hungry Q
'Are you hungry?'

b. **Gaawiin** ~~ni$_i$.bakade.**siin**~~
NEG 1SG.hungry.NEG
'No (I'm not hungry)'

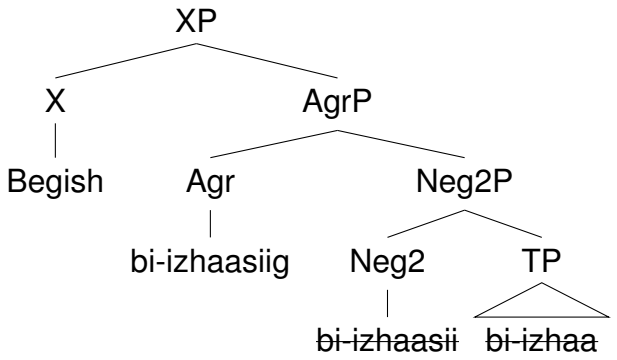


That *gaawiin* is prohibited from the conjunct order was explained in §6.4. In the conjunct order, Spec,C$_{focus}$P, and I assume other projections of the CP domain, are not projected, and thus *gaawiin* has no place to merge (59). As mentioned

[21] $_i$ denotes a referential index in (58).

previously, I assume that *gaawiin* has a static position in the clausal spine, such that it only merges in one location[22], namely Spec,C_{focus}P. (2) is repeated in (59) and abstracts away from where the prefix *bi* is generated. *Begish* 'I hope that' is merged in a projection XP for lack of better terminology.

(59) Begish (***gaawiin**) bi-izhaa.**sii**.g.
I hope NEG here-go.NEG.3SG.CONJ
'I hope he doesn't come.'



Moving back to the independent order, it was discussed previously that the subject of the sentence either precedes or follows *gaawiin*. (27) is repeated in (60).

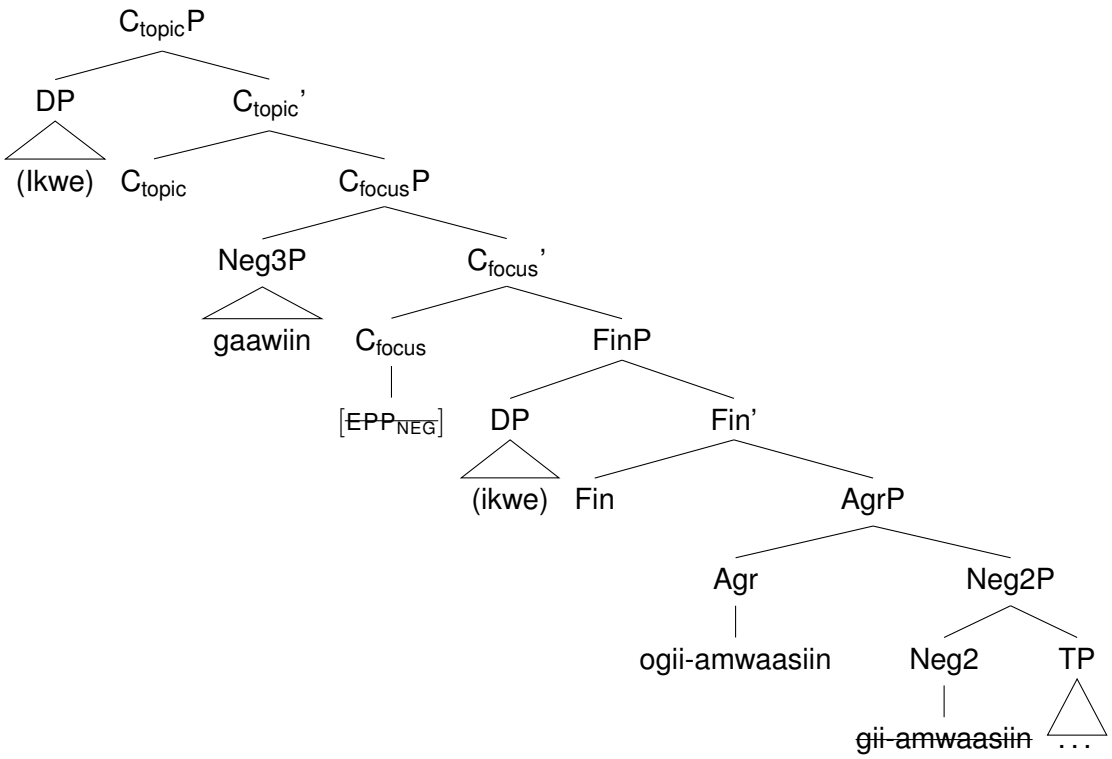
(60) a. Ikwe **gaawiin** o.gii-amw.aa.**siin** bakwezhigan.an.
woman NEG 3SG.PST-eat.DIR.NEG bread.OBV
'The woman didn't eat the bread.' SUBJECT > GAAWIIN

b. **Gaawiin** ikwe o.gii-amw.aa.**siin** bakwezhigan.an.
NEG woman 3SG.PST-eat.DIR.NEG bread.OBV
'The woman didn't eat the bread.' GAAWIIN > SUBJECT

As mentioned earlier, I assume that the subject *ikwe* 'woman' in (60-a) occupies Spec,C_{topic}P and in (60-b) is in the canonical subject position Spec,FinP (61). (61) leaves out the derivation in TP and below to enhance readability.

(61) Two Subject Positions

[22]This does not entail that *gaawiin* is only merged in the clausal spine (the extended projection of a verb), as it was argued for previously that it can merge DP-internally (24).



It should be noted that both object (62) and subject (63) quantifiers have a preference for appearing right-adjacent to *gaawiin* (Michael Sullivan, personal communication), although it is possible for the quantifier to appear after the verb, as mentioned in Valentine (2001, p. 598).

(62) **Gaawiin** (gegoo) in.gii-miijii.**siin** (gegoo).
NEG anything 1SG.PST-eat.NEG anything
'I didn't eat anything.'

(63) **Gaawiin** (awiya) gii-izhaa.**sii**.wag (awiya) imaa Minnesota.
NEG anybody PST-go.NEG.3PL anybody there Minnesota
'Nobody went to Minnesota.'

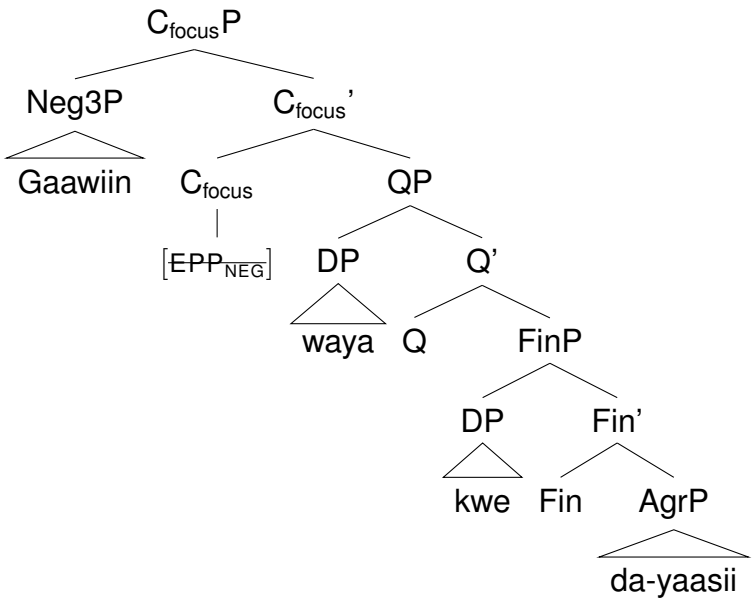
Valentine (2001) also mentions that quantifiers cannot precede *gaawiin*.

It is possible for both a quantifier and a subject, along with other clausal material, to come between *gaawiin* and the verbal complex (64). The orthography in (64) reflects the dialect of Ojibwe spoken in southern Ontario.

(64) **Gaawiin** waya maa kwe besho da-yaa**sii**.
NEG anybody here woman nearby FUT-is in a certain place.NEG
'No woman is to be nearby.' adapted from Valentine (2001)

Regarding (64), I assume that quantifiers do not occupy Spec,FinP, but instead occupy something like a distinct projection in the left-periphery hosting quantifiers, which, for lack of a better term, I term QP[23]. I assume that the quantifier does not appear in the specifier position of a TopicP, given the incompatibility of quantifiers merging in TopicP (López, 2009)[24]. Given the order of quantifier $>$ subject, I assume that QP dominates FinP. I assume the adverbial expressions *maa* 'here' and *besho* 'nearby' appear in distinct projections, as per the cartographic approach of adverbials (Cinque, 1999). (65) diagrams the left-periphery of (64) minus the adverbs and projections below AgrP.

(65) **Gaawiin** waya kwe da-yaa**sii**.



By postulating Spec,C$_{topic}$P, Spec,QP, and Spec,FinP as locations where nominal expressions can merge, it is possible to maintain that *gaawiin* occupies a sin-

[23]See Beghelli and Stowell (1997) for a cartographic approach to quantifiers.
[24]López (2009) basis the restriction on quantifiers merging in Spec,TopicP based on information in Reinhart (1982) that topics cannot be quantifiers.

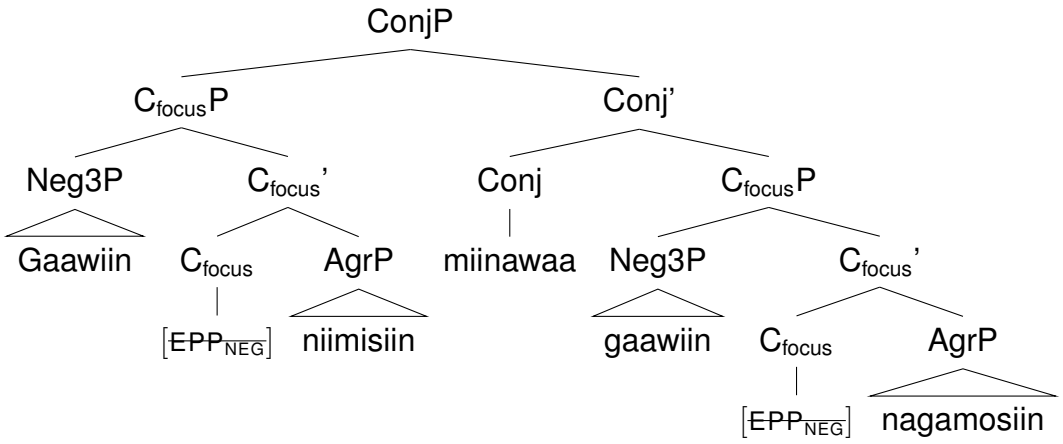
gle position in the clausal spine such that nominal expressions can occur before or after *gaawiin*. The order of $C_{focus}P > QP$ captures the fact that *gaawiin* always precedes pre-verbal quantifiers.

I now turn to discussing sentential negation with coordination. (22) is repeated in (66).

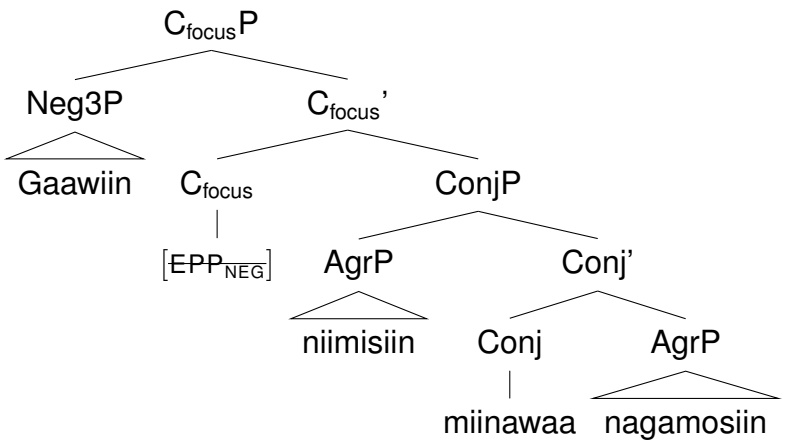
(66) **Gaawiin** niimi.**siin** miinawaa (**gaawiin**) nagamo.**siin**.
NEG dance.NEG and NEG sing.NEG
'She doesn't dance and she doesn't sing.

The first instance of *gaawiin* is obligatory while the second is optional. I assume that when both *gaawiin*'s are present, two CPs are present, *gaawiin* being merged in each respective Spec,$C_{focus}P$ (67). When only the first *gaawiin* is present, I assume that two AgrPs are coordnated (68), and *gaawiin* and the first *-siin* are split from a single extended projection of negation, not pictured in (68).

(67) Coordinated CPs



(68) Coordinated AgrPs



The purpose of illustrating negation with coordination is that the apparent optionality of *gaawiin* in (66) is simply due to the fact that *gaawiin* is present if CPs are coordinated (67) and not present when only AgrPs are coordinated (68). The apparent optionality of *gaawiin* in this environment does not pose an issue for the analysis here.

Analyzing bipartite negation in Ojibwe as the result of syntactic agreement is implausible, given the nature of the AGREE operation as defined in this thesis. In order for AGREE to initiate, the structurally higher negator must bear some uninterpretable feature, where uninterpretable features have no semantic import. Given that *gaawiin* is structurally higher, and that it has clear semantic import with contrastive negation where it appears without *-siin* (7), *gaawiin* cannot be analyzed as bearing uninterpretable features. I assume that it is possible to reconfigure AGREE such that the interpretability of features and semantic import are disentangled in the manner of Zeijlstra (2009), but I think that this would be missing the point. Bipartite negation as the result of NegP splitting and bipartite negation as the result of AGREE display a number of systematic differences. In all instances of NegP splitting, the two negative constituents are a focus and contradictory negator. With AGREE, the constituents involved with bipartite negation are a contradictory negator that may or may not be overt and one or more contrary (*ne* in French), contradictory (*tə1* in Sgaw Karen), or focus (*pas* in French) negators (more on

the similarities and differences among these languages in §6.5). The differences between bipartite negation in Ojibwe and bipartite negation in Sgaw Karen and French call for different analyses that I believe a hacked version of AGREE simply would not capture.

Analyzing bipartite negation in Ojibwe as the result of Spec-head agreement, in the sense of Pollock (1989), Haegeman (1995), Rowlett (1998), and others, is implausible on the grounds that *gaawiin* and *-siin* cannot realistically be analyzed as being housed in one phrase at some point in the derivation. Both *gaawiin* and *-siin* have been argued to occupy static positions in the clausal spine, and no evidence is available to show that the position in which the two constituents appear is derived (meaning they have been base-generated elsewhere and move in the course of the derivation). Furthermore, given that clausal material such as nouns and adverbs can intervene between *gaawiin* and *-siin* (64), it is implausible that the two constituents occur in the same phrase at spell out, given that the nouns and adverbs in (64) and other examples must be in intermediate phrases between the phrases housing *gaawiin* and *-siin*.

I discuss the analysis of bipartite negation in Ojibwe in Déchaine and Wiltschko (2001). I point this analysis out to show how this analysis is superior than previous analyses, and I do not wish to get into finer details of their analysis. Déchaine & Wiltschko argue, following Acquaviva (1997), that sentential negation cross-linguistically is the result of an operator (OP) occurring with a structurally lower negator (NEG) (69).

(69) adapted from Déchaine and Wiltschko (2001, p. 104)

OP $[_{CP} \ldots \text{NEG} \ldots]$

I do not wish to discuss Acquaviva's analysis of negation as it requires too much space and goes beyond the scope of discussion. Déchaine & Wiltschko argue

that languages differ in terms of whether or not OP spells out. In Ojibwe, OP is *gaawiin*[25] and NEG *-siin*. They argue that OP is null in the conjunct order in Ojibwe, thus accounting for the fact that *gaawiin* does not occur in the conjunct order. I do not wish to issue a full rebuttal to their analysis, but I would like to point out that their analysis does not explain the functions of *gaawiin* (as a negative response particle, contrastive negator, etc), and it does not adequately explain why *gaawiin* is obligatory and prohibited in the independent and conjunct orders respectively. Furthermore, their analysis alludes to the fact that bipartite negation cross-linguistically is the result of the spell out of OP and NEG. As has been demonstrated thus far in this thesis, the origins of bipartite negation are multifaceted, and none of which are argued to be the spell out of an operator and a lower negative element.

6.6 Comparison with Sgaw Karen and French

Bipartite negation in Ojibwe differs from bipartite negation in both Sgaw Karen and French. First, in Ojibwe (70), but not in Sgaw Karen (71) or French (72), the structurally highest negator is obligatory. Recall that in Sgaw Karen, the structurally highest negator is *bə5*, despite the fact that it follows the structurally lower *tə1*.

(70) *(**Gaawiin**) ni.mikwendan.**ziin**. [Ojibwe]
NEG 1SG.remember.NEG
'I don't remember.'

(71) jə1 **tə1** nə2 pɨ2 (**bə5**) [Sgaw Karen]
I NEG understand NEG
'I don't understand.'

(72) Marie (**ne**) mange **pas**. [French]
Marie NEG eats NEG
'Marie doesn't eat.' Zeijlstra (2009, p.447)

[25] In the dialect they work in, *gaawiin* is written as *kaawiin*.

The reason that the structurally highest negator is obligatory in Ojibwe is that it must be merged in Spec,$C_{focus}P$ to check off [EPP_{NEG}] in C_{focus}^{0} when sentential negation is present. The optionality of *bə5* in Sgaw Karen and *ne* in French are attributed to different sources. In Sgaw Karen, *bə5* marks sentential negation and is uninterpretable for negation. I assume that *bə5* is always present in the syntax, but may be left unpronounced as it does not contribute to the semantics of the sentence. In French, *ne* is optional as *pas* suffices on its own to value the uninterpretable and unpronounced $Neg2^{0}$. *Ne* may be added to the derivation, but its presence does not affect the interpretation of the sentence, and its optionality is attributed to this fact.

The structurally highest negator in Ojibwe is prohibited in embedded clauses (73). The structurally higher negator in Sgaw Karen (74) and French (75) are both permissible in this environment[26].

(73) Begish (***gaawiin**) bi-izhaa.sii.g. [Ojibwe]
1SG.hope NEG here-go.NEG.3SG.CONJ
'I hope he doesn't come.'

(74) pʷə6 lɤ1 ʔə1 tə1 tʰɔ5 (**bə5**) ʔo5 pʰɛ1 ne5 [Sgaw Karen]
person COMP 3SG NEG tall NEG is there
'The person who isn't tall is there.'

(75) Quel livre croyais- tu que Jean (**n**)-avait prêté à personne? [French]
what book believed you that Jean NEG-had lent to nobody
'Which book did you think that Jean hadn't lent to anyone?'

adapted from Rowlett (1998, p. 205)

The fact that *gaawiin* is prohibited in embedded clauses (more specifically the conjunct order) is attributable to the fact that this environment lacks $C_{focus}P$, the projection hosting *gaawiin*. In Sgaw Karen and French, the structurally highest negator is not associated with this projection, and the structurally highest negator in these

[26] In (75), *ne* associates with *personne*, an n-word, to impart sentential negation.

two languages appears in embedded clauses as they are merged in the TP domain, this domain being available in all embedded clause types discussed in this thesis.

The role of the structurally higher negator is different in the three languages discussed here. The structurally highest negator is used as a negative reply in Ojibwe (76), but not in Sgaw Karen (77) or French (78). In French and Sgaw Karen, *ne* is a hi contrary negator and *bə5* a hi contradictory negator respectively.

(76) [Ojibwe]

a. Gi.bakade na?
2SG.hungry Q
'Are you hungry?'

b. **Gaawiin**
NEG
'No'

(77) [Sgaw Karen]

a. nə1 so3 t^{h}ɨ5 **θe1** (se2 kɔ4) hə1
you lift bag can Q
'Can you lift the bag?'

b. **tə1** me2 (**bə5**)
NEG yes NEG
'no'

(78) adapted from l'Huillier et al. (1999, p. 641) [French]

a. Vous n'avez pas compris?

You did not understand?

b. **Non** (en effet, je n'ai pas compris)

No (in fact, I did not understand)

The fact that *gaawiin* in Ojibwe is used in negative replies is attributed to the fact that it is a hi focus negator. That it is used even with canonical bipartite negation

is due to the fact that it must merge in Spec,C_{focus}P to check off [EPP_{NEG}] in C_{focus}^{0}. In Sgaw Karen and French, *bə5* and *ne* respectively are not hi focus negators, and thus they cannot be used as negative replies. Sgaw Karen does not have a hi focus negator ((77) is a negated version of *me2* 'yes'), and the hi focus negator in French is *non* (78).

The role of the structurally lower negator is different in the three languages discussed here. In Ojibwe, the structurally lowest negator is the sentential negator $Neg2^{0}$ (as has been amply demonstrated thus far, I do not provide an example below). In Sgaw Karen (79), the structurally lowest negator is a lo contradictory negator (it is not used with contrastive negation (79-b)) and in French (80) the structurally lowest negator is a lo focus negator (as it is used with contrastive negation (80-b)).

(79) [Sgaw Karen]

a. jə1 **tə1** nə2 pɨ2 (**bə5**)
I NEG understand NEG
'I don't understand.'

b. ***tə1** John (**bə5**), bə5 s^{h}ə5 Maria
NEG John NEG, but Maria
Intended: not John, but Maria

(80) [French]

a. Marie (**ne**) mange **pas**.
Marie NEG eats NEG
'Marie doesn't eat.' Zeijlstra (2009, p.447)

b. **pas** longue, mais ennuyeuse
NEG long but boring
'not long, but boring.' adapted from de Clercq (2013, p. 50)

One notable difference here is that *-siin*, unlike *tə1* in Sgaw Karen and *pas* in French, is not used to value a structurally higher uninterpretable $Neg2^{0}$. *-siin* on its own is interpretable for negation, and Ojibwe does not realize any form of uninter-

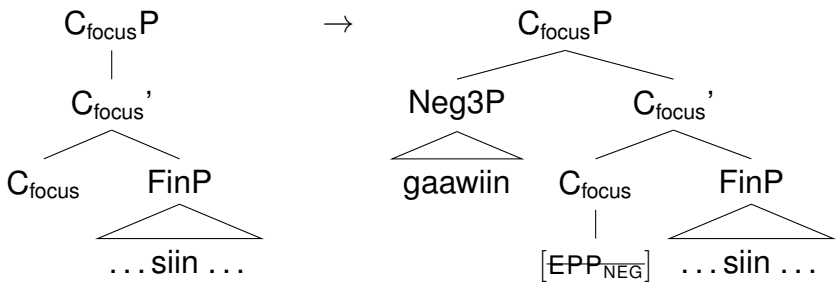
pretable negation.

On a final point, the diachronic path to bipartite negation in Ojibwe appears to be different from the path in French. I have nothing to say about Sgaw Karen on this matter. For French, it was shown in chapter four and references cited therein that bipartite negation is the result of a historical emphatic negation construction being bleached of its meaning and repurposed to signal canonical sentential negation. With Ojibwe, the evidence here suggests that bipartite negation could be the result of negative polarity emphasis being bleached of its role in being used solely when negating an antecedent proposition and repurposed to be used for canonical sentential negation. I am unaware of any literature discussing the origin of bipartite negation in Ojibwe. Goddard (2006) discusses the history of Algonquian negation, but he does not cover this specific topic. Proulx (1980) suggests that bipartite negation in Menominee, shown in (81) and cognate with bipartite negation in Ojibwe, historically arose from an 'emphatic-negative' construction, although he does not give enough information to tell whether or not this refers to emphatic negation or negative polarity emphasis as the terms are used here.

(81) **kan** keke:**s-n**ianenɛnan. [Menominee]
'I did not see thee.' adapted from Proulx (1980, p. 297)

I contend that negative polarity emphasis is the most plausible origin for bipartite negation in Ojibwe, given the similarities between negative polarity emphasis in languages like English and Ojibwe bipartite negation. A possibility is that Ojibwe began to realize the [EPP_{NEG}] feature on $C_{\text{focus}}{}^{0}$ when sentential negation is present (82) such that *gaawiin* became obligatory even when negation is not used to target an antecedent proposition.

(82) $C_{\text{focus}}{}^{0}$ Gains [EPP_{NEG}]



If this is the case, then bipartite negation in Ojibwe has its roots in something other than the Jespersen's Cycle, which has emphatic negation as the origin of bipartite negation in languages like French and others (see Hansen and Visconti 2012). The data in Ojibwe make it clear that the historical origins of bipartite negation are not uniform, a point already made in places like Kiparsky and Condoravdi (2006), Biberauer (2007), and Chatzopoulou (2013), albeit for different reasons. Here the reason is specifically that bipartite negation may have its origin in negative polarity emphasis, and thus it is important for analyses to not default on emphatic negation as the origin of bipartite negation.

6.7 Parallels with the Scandinavian Double Definite Construction

This section discusses some parallels between bipartite negation in Ojibwe and the Scandinavian double definite construction (83), focusing here on Norwegian (see Julien 2004 for an overview). The purpose here is to show that the pattern of doubling found with Ojibwe negation is parallel to doubling phenomena in other languages, and that doubling as the result of splitting is a distinct form of doubling that is not limited to the domain of negation. In Norwegian, when an adjective is present, two determiners, a demonstrative pronoun and a definite article co-occur

(83). The interpretation of (83) is that it is ambiguous between a reading with the demonstrative pronoun or the definite article (see Dahl 2004 on this fact[27,28]).

(83) **det** store hus.**et**
DEM big house.DEF
'that/the big house' adapted from Ramchand and Svenonius (2008)

When an adjective is not present, the definite article appears alone (84).

(84) hus.**et**
house.DEF
'the house' adapted from Ramchand and Svenonius (2008)

The definite article and demonstrative also co-occur when no adjective is present and when the demonstrative has semantic import (85) (see Dahl 2004, Vinje 2005, Leu 2008).

(85) **det** hus.**et**
DEM house.DEF
'that house'

I now turn to discussing the parallels between the double definite construction (83) and bipartite negation in Ojibwe, dedicating a paragraph to each parallel.

Both determiners in the double definite construction are obligatory in the presence of an adjective (86). Without an adjective, and specifically with the definite article interpretation (compare (87) with (85)), the demonstrative pronoun is prohibited (see Leu 2008). (83) is modified and repeated in (86).

(86) *(**det**) store hus.*(**et**)
DEM big house.DEF
'that/the big house' adapted from Ramchand and Svenonius (2008)

[27]Dahl (2004, p. 159) mention specifically that what they term the preposed article or P-article, equivalent to *det* in (83), is formally indistinguishable from the demonstrative, modulo some differences in intonation that are glossed over here.

[28]This ambiguity is not noted in Ramchand and Svenonius (2008), the source from which (83) is taken.

(87) (***det***) hus.**et**
DEM house.DEF
Intended: 'the house' (specifically not 'that house', see (85))

Take the independent and conjunct orders to be parallel to (86) and (87) respectively. *Gaawiin* is parallel to *det* in (86) in that it is required in a certain environment and prohibited in another (87). I do not wish to get into the internal structure of DPs in Norwegian (see Julien 2004, Leu 2008 for analyses), but I contend that it is possible that there are parallels between the verbal and nominal domains such that there is something about an adjective being present activating a left periphery responsible for demonstratives like *det* being realized in a similar manner to the independent order activating Spec,C_{focus}P responsible for *gaawiin* being realized (possibly a DP-internal focus projection, see Aboh 2004).

Both negators and determiners are realized in three classes. Demonstratives were shown to be parallel to focus negators, and definite articles were shown to be parallel to contradictory negators. Thus, *det* and *-et* are parallel to *gaawiin* and *-siin* in being parallel classes in their respective tripartitions of determiners and negators respectively.

The double definite construction (86) is ambiguous in a similar way to bipartite negation in Ojibwe. (83), repeated in (89), is ambiguous between an interpretation where the noun phrase necessarily targets an antecedent (interpreted as the demonstrative) or does not have to target an antecedent (interpreted as the definite article)[29] (89) (see Dahl 2004). This is parallel to the fact that Ojibwe bipartite negation is ambiguous between targeting an antecedent and not having to target

[29]Abbott (2004) discusses the examples in (88) where the definite article modifies an NP that does not refer back to an entity in discourse.

(88) Prince (1992), cited in Abbott (2004, p. 132)
a. There were the same people at both conferences.
b. There was the usual crowd at the beach.
c. There was the stupidest article on the reading list.

an antecedent (90). (9-b) is repeated in (90).

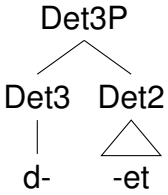
(89) **det** store hus.**et**
DEM big house.DEF
'that/the big house' adapted from Ramchand and Svenonius (2008)

(90) **Gaawiin** gii-izhaa.**siin**.
NEG PST-go.NEG
'No she didn't' (negative polarity emphasis) / 'She didn't.' (canonical negation)

I assume that, for Norwegian, the ambiguity arises from the fact that the demonstrative *det* may or may not bear a focus feature parallel to $[\text{NEG}_{\text{FOC}}]$ responsible for *det* targeting an antecedent, assuming that *det* and *-et* derive from a single extended projection and underdo determiner splitting parallel to NegP splitting. This is parallel to the fact that *gaawiin* may or may not bear $[\text{NEG}_{\text{FOC}}]$.

It is worthy to point out that the definite article in the double definite construction appears to be a structurally reduced demonstrative, for example *-et* and *det* respectively in (89) (a similar point made in Lyons 1999). This fact can be modeled in a phrasal splitting approach to the Scandinavian double definite construction in that *-et* is something equivalent to Det(erminer)2 and *det* Det3P, such that the node Det3^0 is a prefix *d-* attaching to Det2 *et* (91).

(91)



I leave a more articulated analysis of the Scandinavian double definite construction to future work.

The information here suggests that the syntax of bipartite negation in Ojibwe

can be found in other domains in other languages. This suggests that splitting is a distinct form of syntactic doubling present in different domains. I have not given a more thorough treatment of the double definite construction here as it goes beyond the scope of this thesis, and the purpose here is to show these parallels may open up avenues for future research. The information here suggests that the two determiners in the double definite construction are not related via AGREE, and thus an analysis of this construction should not make use of this operation (I am currently unaware of an analysis that does).

6.8 Conclusion

In this chapter I have argued that bipartite negation in Ojibwe is the result of NegP splitting. The result of this analysis is that bipartite negation in Ojibwe shows parallels to the syntax of negative polarity emphasis in English and other languages, which I have shown to be the case. These parallels include the fact that both negators are obligatory in matrix clauses, the structurally highest negator is prohibited in embedded clauses (more specifically, in the conjunct order), both negators are interpretable for negation, and that the structurally higher and lower negators have the functions of hi focus and hi contradictory negators respectively (although I have argued that Ojibwe does not realize the hi/lo distinction with negation).

In §6.6 I showed that bipartite negation shows a number of systematic differences from Sgaw Karen and French and constitutes a distinct type of bipartite negation. This section also explored the different origins of bipartite negation, and I provided arguments, following discussion in Proulx (1980), that bipartite negation in Ojibwe appears to have arisen from a historical negative polarity emphasis construction. This diachronic path to bipartite negation is different from languages like French, which follow Jespersen's Cycle in having bipartite negation arise from an

emphatic negation construction. This shows, in a manner similar to Kiparsky and Condoravdi (2006), Biberauer (2007), and Chatzopoulou (2013), that not all languages conform to Jespersen's Cycle, although the reason here is different from the origins of bipartite negation in either historical Greek (Kiparsky and Condoravdi 2006, Chatzopoulou 2013) or Afrikaans (Biberauer, 2007).

Finally, although I have only touched on this briefly, bipartite negation in Ojibwe was shown to have a number of parallels with the Scandinavian double definite construction. My hope is that these demonstrated parallels open up avenues for future research on doubling phenomena more generally, more specifically doubling as the result of phrasal splitting. In the next chapter, I highlight some other avenues for future research as I recap the main points of this thesis.

Chapter 7

Conclusion

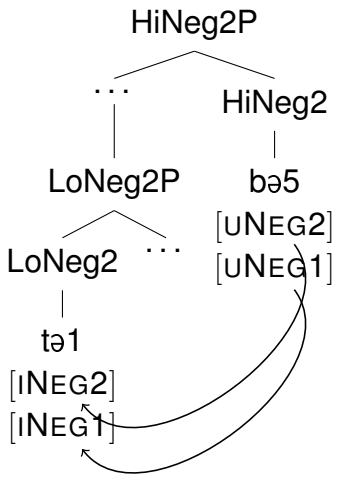
I conclude the dissertation by summarizing the three types of bipartite negation exhibited by Sgaw Karen, French, and Ojibwe in §7.1, provide a summary of important claims that have been made in §7.2, and discuss avenues for future work in §7.3.

7.1 Three Types of Bipartite Negation

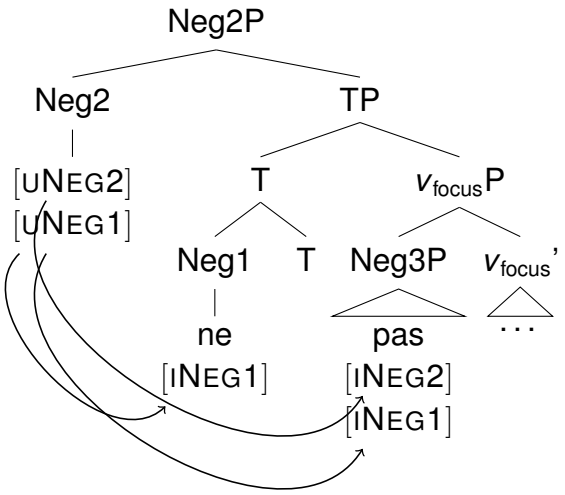
A central goal of this thesis was to account for how two negators can yield one instance of semantic negation when realized in tandem. I showed that the single interpretation of negation arises from different sources in Sgaw Karen, French, and Ojibwe. In Sgaw Karen, the two negators taking part in bipartite negation, *tə1* and *bə5*, are interpretable and uninterpretable for negation respectively (1). More specifically, *tə1* bears [iNEG1] and [iNEG2] and *bə5* [uNEG1] and [uNEG2]. A single instance of interpretation arises from the agreement relation between the two constituents, where there are two agreement chains for both features of negation [NEG1] and [NEG2]. The single interpretation of negation is not due to the fact that only one constituent is interpretable for negation (similar to frameworks such

as Zeijlstra 2004, 2008, Kramer and Rawlins 2009, 2010, Penka 2011, and Holmberg 2016), but specifically from the two agreement chains outputting to contradictory (sentential) negation. In French, there are two overt interpretable constituents for negation (2), and the two agreement chains in tandem output to one instance of contradictory negation. More specifically, two instances of [iNEG1] output to one interpretation of that feature. As was mentioned previously, French sentential negation (specifically when *ne* is present) is really like tripartite negation, although I used the term bipartite negation to refer to the overt constituents taking part in negation.

(1) Bipartite Negation in Sgaw Karen

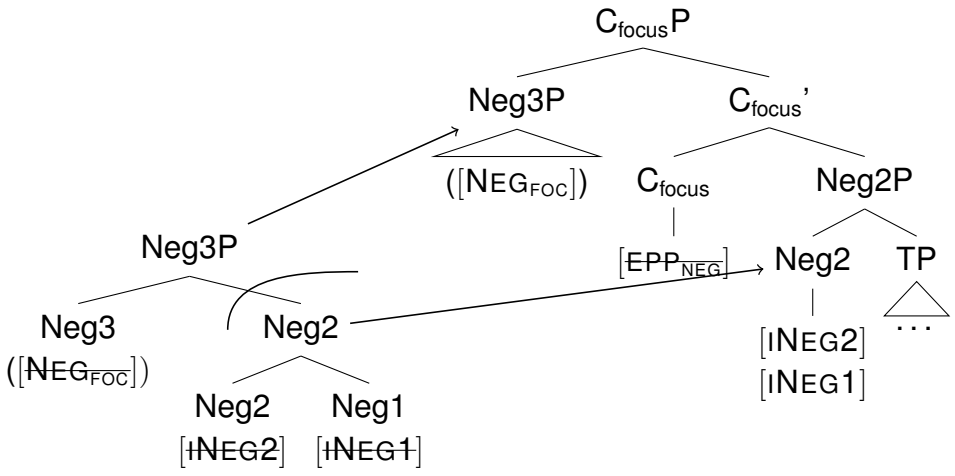


(2) Bipartite Negation in French



In Ojibwe, the two constituents taking part in bipartite negation do not occur in an agreement relation but arise from a single extended projection of negation and are split such that Neg2^0 and Neg3P are merged in separate projections (3). When Neg2^0 is merged, the two interpretable features [iNEG1] and [iNEG2] are realized in the clausal spine. Neg3P is then merged to check off the [EPP$_{NEG}$] feature on C$_{focus}{}^0$. Canonical negation is interpreted when Neg3P does not bear [NEG$_{FOC}$], and negation targeting an antecedent proposition (negative polarity emphasis) is interpreted when Neg3P bears [NEG$_{FOC}$].

(3) Bipartite Negation in Ojibwe



The functions of each overt negator are different in each language. In Sgaw Karen, *bə5* marks the scope of sentential negation, and *tə1* is a negator that, when occurring in tandem with *bə5*, acts as the interpretable signal of sentential negation. Without *bə5*, it was shown that *tə1* can mark sub-sentential negation. *bə5* is optional, and it was argued that this is due to the fact that it does not add to the semantics of the sentence. In French, *ne* is a contrary negator (following Schapansky 2002, 2010), and more specifically a hi contrary negator. Its distribution is limited, but most importantly it has negative import (contra Pollock 1989, Rowlett 1998, Zeijlstra 2004, 2008, 2009, among others). *Ne*'s optionality is due to the fact that *pas* suffices by itself to signal sentential negation, and thus *ne* is not necessary to signal sentential negation and may be left out of the derivation. *Pas* is specifically a lo focus negator. It can be used in the 'not X, but Y' construction. In Ojibwe, *gaawiin* is a focus and *-siin* a contradictory negator respectively. *Gaawiin* is used as a negative response particle and can also be used contrastively. The function of *-siin* is to either mark sentential or sub-sentential negation, in the latter case specifically in deverbal nominal constructions. Table 7.1 summarizes the functions of the overt negators in Sgaw Karen, French, and Ojibwe. HI-NEG refers to the structurally higher negator and LO-NEG the structurally lower negator. Recall that in Ojibwe there is no distinction between hi and lo focus and contradictory negation.

Table 7.1: Bipartite Negation in Sgaw Karen, French, and Ojibwe

	XP/head/clitic	embeddable	function	interpretable	optional
Sgaw Karen					
bə5	head	✓	hi contradictory	*	✓
tə1	head	✓	lo contradictory	✓	*
French					
ne	clitic	✓	hi contrary	✓	✓
pas	XP	✓	lo focus	✓	*
Ojibwe					
gaawiin	XP	*	focus	✓	*
-siin	head	✓	contradictory	✓	*

This framework captures the fact that bipartite negation is not a uniform phenomenon cross-linguistically, and the terminology posited here, a variant of the terminology presented in de Clercq (2013), derives the distinct functions of each negator participating in bipartite negation.

7.2 Summary of the Claims Made

In chapter two I argued that classes of negators form a tripartition parallel to the frameworks of Cardinaletti and Starke (1999) for pronouns and Panagiotidis (2000) for determiners. The tripartition involves the classes of contrary, contradictory, and focus negators forming a cline of internal structure such that contradictory negators are built on contrary negators and focus negators on contradictory negators. This tripartition is a variant of the analysis of de Clercq (2013) such that contrary and contradictory negation parallel her classes of quantifier and degree negation respectively. This framework differs from hers in that these classes of negators can merge in two places, in what I have termed the hi and lo domain, the former domain

referring to the CP and TP domains of the clause and the latter to the *v*P domain and the extended projections of NPs and AdjPs. de Clercq's class of polar negators is equivalent to hi contradictory negators in this framework. This framework differs from de Clercq's in also realizing the class of hi focus and hi contrary negators, the former class being discussed in passing in her work as negative response particles but not given a formal treatment, and the latter class, the sole constituent of this class discussed in this thesis being *ne* in French, not being discussed in her work.

The tripartition of negation was invoked to explain the phenomenon of NegP splitting and to draw parallels among negation, pronouns, and determiners. In chapter six, I showed that the Scandinavian double definite construction parallels bipartite negation in Ojibwe. This shows that the syntactic doubling found with negation is found in other domains. My hope is that future work in syntactic doubling will further draw parallels with pronouns and other classes, and that this form of syntactic doubling is seen as a distinct class from other types of syntactic doubling, for example, doubling as the result of two constituents in a movement chain being spelled out (see Nunes 2004, Barbiers 2009, Barbiers et al. 2009) or syntactic doubling as the result of two constituents being involved in an AGREE relation (Sgaw Karen and French bipartite negation).

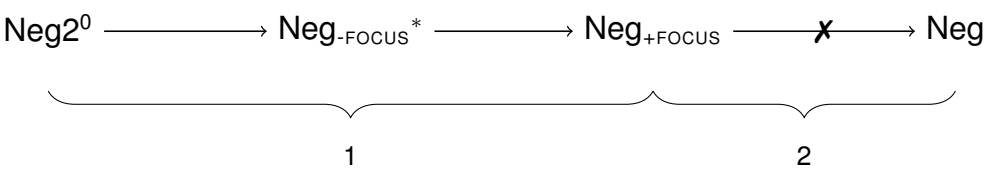
I have rejected a Spec-head agreement account of all forms of bipartite negation, thus rejecting frameworks such as Pollock (1989), Ouhalla (1990), Haegeman (1995), Rowlett (1998), and others. I argue that this falls in line with rejecting Spec-head agreement wholesale, as recent work has rendered this configuration otiose (Chomsky, 2000, 2001).

I have also rejected AGREE applying to all instances of bipartite negation. I showed that bipartite negation is the result of an agreement relation only when the head Neg2^0 is uninterpretable for negation. I have adopted a form of AGREE

such that it follows the interpretability/valuation biconditional (Chomsky 2000, contra Pesetsky and Torrego 2007), and is initiated only by a negative element void of semantic import on its own. The AGREE operation, as it is used here, terminates specifically when it hits v_{focus}P or a phase boundary, and not when it finds the first constituent interpretable for that feature.

The version of AGREE that I have argued for opens the door to analyzing potential negation tripling and even quadrupling. If Neg2^0 is uninterpretable for negation, then it follows that any number of constituents interpretable for negation along the agreement path from Neg2^0 to its termination point, for example, a lo focus negator in Spec,vP, should output to one instance of interpretable negation. Furthermore, any negator realized structurally lower than the termination point (linearly to the right of the focus negator in (4)) should constitute a second instance of interpretable negation such that the two agreement chains together imparting contradictory negation and the structurally lower contradictory negator in tandem yield positivity. (4) is repeated from chapter four[1].

(4) Multiple Exponence of Negation up to Spec,v_{focus}P



In chapter four it was shown that this configuration could explain the single interpretation of negation with multiple negative clitics in tandem with a negative adverb in dialects of Italian and the multiple exponence of n-words in West Flemish. Arguments were made in chapters two and three that the configuration in (4) can explain why 'can't not' and its equivalents in other languages, for example Sgaw

[1]The kleene star $*$ in (4) denotes any number of elements from zero upwards. The feature [-FOCUS] represents a non-focus (contradictory or contrary) negator and is not a formal feature taking part in AGREE. [+FOCUS] refers to a focus negator. Neg without a feature means any class of negator.

Karen as discussed in chapter three, yield the logical dual of can 'must' with a positive semantics, and why double negation occurs when *pas* and one or more n-words co-occur in dialects of French.

Similar to discussion in Kiparsky and Condoravdi (2006) and Biberauer (2007), it was shown that not all languages follow Jespersen's Cycle. I speculated in chapter six that bipartite negation in Ojibwe probably arose from a historical negative polarity emphasis construction based on discussion in Proulx (1980) for bipartite negation in Menominee, the construction in this language cognate with Ojibwe. Ojibwe thus differs from languages like French where bipartite negation arose historically from an emphatic negation construction. Two things are of importance here. First, I follow Larrivée (2014) in distinguishing between two types of negative emphasis, negative polarity emphasis and emphatic negation. It is important to make this distinction to note the different diachronic origins of bipartite negation. Second, the data from Ojibwe adds to the importance that Jespersen's Cycle should not be seen as the default diachronic path of negation.

I have adopted a variant of NegP splitting similar to Poletto (2008) and de Clercq (2013) to explain bipartite negation in Ojibwe. NegP splitting was used to also account for negative polarity emphasis in English, and the analysis I put forth makes specific predictions about negative replies. It was shown that negative responses, the phenomenon of uttering a hi focus negator in isolation with an optional pause and a second clause (equivalent to the analysis of Laka 1990), involve elided negative polarity emphasis in languages like English, Italian, and Ojibwe, where in the latter language the syntax of negative polarity emphasis and canonical bipartite negation is the same. The framework derives, in a similar fashion to Kramer and Rawlins (2009, 2010) and Holmberg (2016), modulo some differences in the execution of the framework, the fact that a hi focus negator marks agreement with a negative antecedent, an example of the polar-based answering system. This

framework predicts that a language conforming to the truth-based system of answering should not realize negative polarity emphasis, which appears to be the case in Mandarin. I also made specific predictions about the syntax of truth-based answering system regarding the fact that the hi focus negator in responding to a negative antecedent must realize a second continuation clause exhibiting positive polarity. Whether or not these predictions hold true cross-linguistically is a matter I set aside for future research.

Finally, I argued in chapter six that the conjunct order in Ojibwe, and, a fortiori, in Algonquian languages in general, realizes a reduced clausal structure lacking projections in the CP domain above FinP (contra Campana 1996, Brittain 2001, and Sullivan 2016, although not necessarily in terms of a finely articulated left periphery). I argued that this was the case as the verbs licensing the conjunct order in the complement clause are the same class of verbs that do not permit main clause phenomena in other languages (see Heycock 2006). I argued, following Haegeman (2003, 2006) and similar arguments in Hernanz (2006), that clauses not permitting main clause phenomena, including hi focus negation, argued here to be a main clause phenomenon, lack the phrases in the CP domain hosting constituents such as hi focus negators ($C_{focus}P$), this being the reason why *gaawiin* in Ojibwe is prohibited from appearing in the conjunct order.

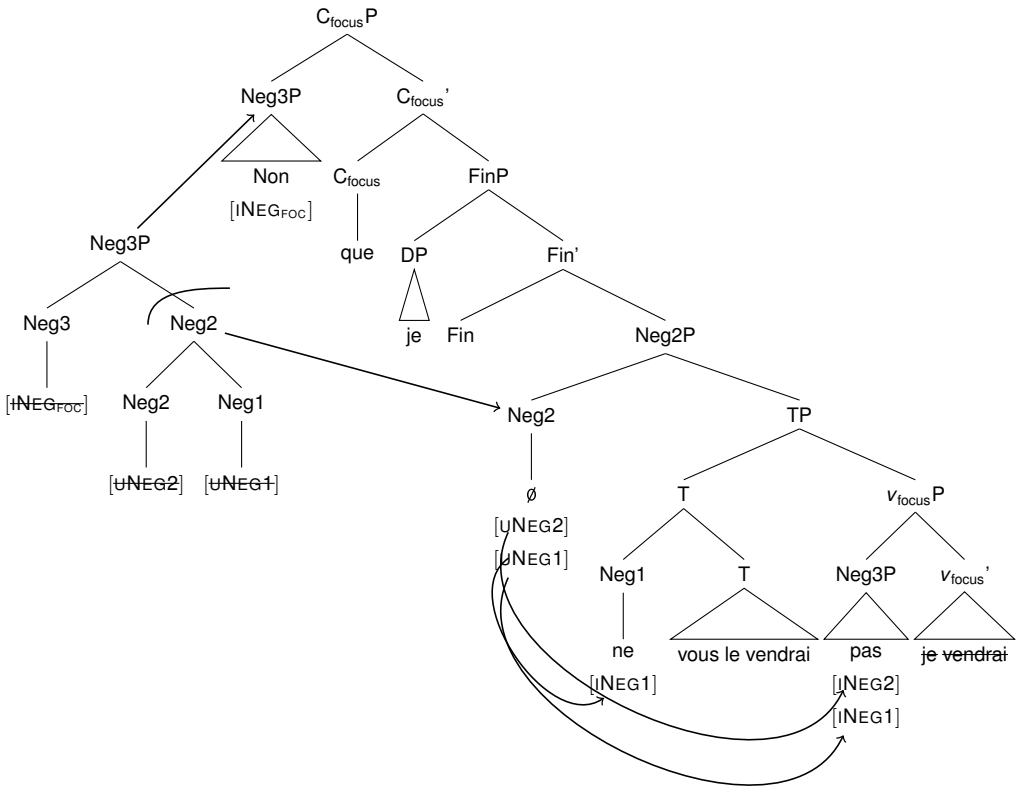
7.3 Future Work

I discussed some avenues for future work in the previous section. In this section I highlight some more possibilities.

The matter of tripling and quadrupling was taken up in chapter four and in the previous section, but specifically for multiple instances of negative clitics and n-words. This framework predicts a scenario of negative tripling where a language

like French (or possibly Sgaw Karen, I focus on French here for simplicity) which historically realized something like a *ne*. . . *pas* configuration goes through a stage similar to what I have argued for Ojibwe where the hi focus negator becomes obligatory in matrix clauses. For example, take the sentence and diagram in (5) as repeated from chapter four as an example.

(5) Oh que **non** que je (**ne**) vous le vendrai **pas**.
oh that no that I NEG you it will sell NEG
'Of course I wouldn't sell you that!'



This framework predicts that that a language could realize triple negation in a manner similar to (5), modulo the fact that the equivalent to *non*, a hi focus negator, becomes obligatory in matrix clauses to satisfy an [EPP] requirement in a manner similar to Ojibwe. The equivalent of *ne* remains optional, and the equivalent of *pas* is obligatory in all instances.

Negative tripling, while rare, is observed outside of instances where the tripling realizes two clitics and one adverb. Lewo is one example, as discussed in Early (1994). In Lewo, there are three negators, **pe**, **re**, and **po** (allomorphic variants of these negators are not discussed here) realized with sentential negation (6). *Pe* is optional, *re* is obligatory, and *po* appears in realis environments (6-a), but not irrealis (6-b) environments.

(6) [Lewo]

a. Yuwa (**pe**) kove **re** **po**.
rain NEG fall NEG NEG
'It didn't rain.' adapted from Early (1994, p. 75)

b. Nega (**pe**) ø-va **re**.
he NEG 3SG-go NEG
'He won't go.' adapted from Early (1994, p. 67)

It is possible that tripartite negation in Lewo arises from the hypothetical scenario discussed above, with some variation. For example, *pe* and *re* could be the equivalent of *ne* and *pas* in a proto-form of Lewo, and that *po* might be the equivalent of a hi focus negator, which perhaps is prohibited in certain environments given idiosyncratic principles of Lewo syntax (for example, the fact that it cannot appear with the irrealis in a matrix clause, as opposed to embedded clauses more generally). Whether or not this analysis applies to Lewo goes far beyond the scope of this thesis.

Finally, I discussed the multiple exponence of n-words only briefly, mostly in discussion with French and West Flemish in chapter four. It is an open question as to how this framework could be used, if at all, to explain this phenomenon. Following discussion in Poletto (2008) and de Clercq (2013), negators realize complex internal structure. My hope is that future work on the multiple exponence of n-words will makes sense of this fact and will at least not default on using AGREE with one or more constituents realizing a simple binary [±NEG] feature.

Bibliography

Abbott, Barbara. 2004. Definiteness and indefiniteness. In *The handbook of pragmatics*, ed. Laurence Horn and Gregory Ward, 122–149. Oxford, Malden: MA Blackwell.

Aboh, Enoch. 2004. Topic and focus within D. *Linguistics in the Netherlands* 21:1–12.

Acquaviva, Paolo. 1997. *The logical form of negation: A study of operator-variable structures in syntax*. New York: Garland.

Adger, David. 2013. *A syntax of substance*. Cambridge, MA: MIT.

Anagnostopoulou, Elena. 2006. Clitic doubling. In *The blackwell companion to syntax*, ed. M. Everaert and H. van Riemsdijk, 519–581. Oxford: Blackwell Publishers.

Andorno, Cecilia, and Fabiana Rosi. 2015. Short replies in Italian: Sì/no and other markers between polarity and agreement. *Journal of Pragmatics* 87:105–126.

Antomo, Mailin. 2012. Projective meaning and the licensing of embedded root phenomena. *Proceedings of ConSOLE XIX* .

Asher, Nicholas, and Alex Lascarides. 2003. *Logics of conversation*. Cambridge: Cambridge University Press.

Authier, J-Marc. 2013. Phase-edge features and the syntax of polarity particles. *Linguistic Inquiry* 44:345–389.

Baker, Mark. 1985. The mirror principle and morphosyntactic explanation. *Linguistic Inquiry* 16:373–416.

Ballard, Emilie. 1900. *Say it in Karen*. Thailand Baptist Missionary Fellowship.

Barbiers, Sjef. 2009. Locus and limits of syntactic microvariation. *Lingua* 119:1607–1623.

Barbiers, Sjef, Olaf Koeneman, and Marika Lekakou. 2009. Syntactic doubling and the structure of wh-chains. *Journal of Linguistics* 46:1–46.

Barton, Ellen. 1990. *Nonsentential constituents*. Amsterdam: John Benjamins.

Barwise, Jon, and Robin Cooper. 1981. Generalized quantifiers and natural language. *Linguistics and Philosophy* 4:159–219.

Batllori, Montserrat, and Maria-Lluisa Hernanz. 2011. Emphatic polarity in Spanish and Catalan. In *GIST 4 Workshop: Polarity emphasis–distribution and locus of licensing*. Universiteit Gent, September 29-30, 2011.

Beghelli, Filippo, and Tim Stowell. 1997. Distributivity and negation: The syntax of each and every. In *Ways of scope taking*, ed. A. Szabolcsi, 71–107. Dordrecht: Kluwer.

Bell, Arthur. 2004. Bipartite negation and the fine structure of the negative phrase. Doctoral Dissertation, Cornell University.

Benincà, Paola. 1988. L'ordine degli elementi della frase e le costruzioni marcate. In *Grande grammatica Italiana di consultazione*, ed. L. Renzi, volume 1, 129–194. Bologna: Il Mulino.

Benincà, Paola, and Cecilia Poletto. 2004. Topic, focus and V2: defining the CP sublayers. In *The structure of CP and IP*, ed. L. Rizzi, 52–75. New York, Oxford: Oxford University Press.

Bentzen, Kristine. 2009. Embedded root phenomena, assertion, presupposition, and main point of utterance. Paper presented at the ZAS Workshop on Root Phenomena, Berlin, September 2-4, 2009.

Bentzen, Kristine. 2010. Exploring embedded main clause phenomena: The irrelevance of factivity and some challenges from V2 languages. *Theoretical linguistics* 36:163–172.

Béziau, Jean-Yves. 2016. Disentangling contradiction from contrariety via incompatibility. *Logica Universalis* 10:157–170.

Biberauer, Theresa. 2007. A closer look at negative concord in Afrikaans. *Stellenbosch Papers in Linguistics Plus* 35:1–51.

Biberauer, Theresa, Anders Holmberg, and Ian Roberts. 2008. Structure and linearization in disharmonic word orders. In *Proceedings of the 26th west coast conference on formal linguistics*, ed. C. B. Chang and H. J. Haynie, 96–104. Somerville, MA: Cascadilla Press.

Biberauer, Theresa, and Ian Roberts. 2011. Negative words and related expressions: A new perspective on some familiar puzzles. In *The evolution of negation: beyond the Jespersen cycle*, ed. R. Ingham and P. Larrivée, 23–60. Berlin: Mouton de Gruyter.

Biberauer, Theresa, and Hedde Zeijlstra. 2012. Negative concord in Afrikaans: filling a typological gap. *Journal of Semantics* 29:345–371.

Bobaljik, Jonathan David. 1995. Morphosyntax: The syntax of verbal inflection. Doctoral Dissertation, Massachusetts Institute of Technology.

Borer, Hagit. 2005. *In name only: Volume 1*. Oxford University Press.

Bošković, Željko. 2002. Clitics as nonbranching elements and the linear correspondence axiom. *Linguistic Inquiry* 33:329–340.

Breitbarth, Anne, Karen de Clercq, and Liliane Haegeman. 2013. The syntax of polarity emphasis. *Lingua* 128:1–8.

Brittain, Julie. 2001. *The morphosyntax of the Algonquian conjunct verb: A minimalist approach*. New York: Garland.

Butler, Jonny. 2003. A minimalist treatment of modality. *Lingua* 113:967–996.

Campana, Mark. 1996. The conjunct order in Algonquian. *Canadian Journal of Linguistics/Revue canadienne de linguistique* 41:201–234.

Cardinaletti, Anna, and Michal Starke. 1999. The typology of structural deficiency: A case study of the three classes of pronouns. In *Clitics in the languages of Europe*, ed. H. van Riemsdijk, 145–233. Berlin and New York: Mouton de Gruyter.

Chatzopoulou, Katerina. 2012. Negation and nonveridicality in the history of Greek. Doctoral Dissertation, The University of Chicago.

Chatzopoulou, Katerina. 2013. Re(de)fining Jespersen's Cycle. *University of Pennsylvania Working Papers in Linguistics* 19:31–40.

Cheng, Lisa L-S, and Rint Sybesma. 2003. Forked modality. *Linguistics in the Netherlands* 20:13–23.

Choi, Yoonhee, and Chungmin Lee. 2017. Expletive negation and polarity alternatives. In *Contrastiveness in information structure, alternatives and scalar implicatures*, ed. C. Lee, F. Kiefer, and M. Krifka, 175–201. Springer.

Chomsky, Noam. 1957. *Syntactic structures*. The Hauge: Mouton.

Chomsky, Noam. 1995a. Bare phrase structure. In *Government and binding theory and the minimalist program*, ed. G. Webelhuth, 383–439. Oxford: Blackwell.

Chomsky, Noam. 1995b. *The minimalist program*. MIT Press, Cambridge, Mass.

Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. R. Martin, D. Michaels, and J. Uriagereka, 89–155. MIT press.

Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. Michael Kenstowicz, 1–52. Cambridge, Massachusetts: MIT Press.

Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. Oxford: Oxford University Press.

Coon, Jessica, and Alan Bale. 2014. The interaction of person and number in Mi'gmaq. *Nordlyd* 41:85–101.

Corblin, Francis, Viviane Déprez, Henriëtte de Swart, and Lucia Tovena. 2004. Negative concord. In *Handbook of French semantics*, ed. F. Corblin and H. de Swart, 417–452. Stanford, CA: CSLI Publications.

Dahl, Östen. 1979. Typology of sentence negation. *Linguistics* 17:79–106.

Dahl, Östen. 2004. Definite articles in Scandinavian: Competing grammaticalization processes in standard and non-standard varieties. In *Dialectology meets typology: Dialect grammar from a cross-linguistic perspective*, ed. Bernd Kortmann, 245–275. Berlin: Mouton de Gruyter.

de Clercq, Karen. 2013. A unified syntax of negation. Doctoral Dissertation, Ghent University.

de Swart, Henriette, and Ivan A Sag. 2002. Negation and negative concord in Romance. *Linguistics and Philosophy* 25:373–417.

Deal, Amy Rose. 2015. Interaction and satisfaction in φ-agreement. In *Proceedings of NELS 45*, ed. T. Bui and D. Ozylidiz, 179–192. University of Massachusetts, Amherst.

Déchaine, Rose-Marie, and Martina Wiltschko. 2001. Negation at the left periphery. evidence from Algonquian and Salish. In *Proceedings of WECOL*, ed. L. Carmichael, C-H. Huang, and V. Samiian, 104–117. Fresno: CSU Fresno.

Early, Robert. 1994. Lewo. In *Typological studies in negation*, ed. P. Kahrel and R. van den Berg, 65–92. Amsterdam: John Benjamins.

Embick, David, and Rolf Noyer. 2001. Movement operations after syntax. *Linguistic Inquiry* 32:555–595.

Erlewine, Michael Yoshitaka. 2017. Low sentence-final particles in Mandarin Chinese and the final-over-final constraint. *Journal of East Asian Linguistics* 26:37–75.

Ernst, Thomas. 1992. The phrase structure of English negation. *The Linguistic Review* 9:109–144.

Fairbanks, Brendan. 2016. *Ojibwe discourse markers*. Lincoln/London: University of Nebraska Press.

Farkas, Donka. 2010. The grammar of polarity particles in Romanian. In *Edges, heads, and projections: Interface properties*, ed. A. M. Di Sciullo and V. Hill, 87–124. Amsterdam: John Benjamins.

Farkas, Donka, and Floris Roelofsen. 2012. Polar initiatives and polarity particles in an inquisitive discourse model. Manuscript, UCSC and ILLC.

Farkas, Donka F. 2009. Polarity particles in Hungarian. In *Approaches to Hungarian vol. 11: Papers from the 2007 New York conference*, ed. M. den Dikken and R. Vago, 95–118. Amsterdam: John Benjamins.

Farkas, Donka F, and Kim B Bruce. 2010. On reacting to assertions and polar questions. *Journal of semantics* 27:81–118.

Folli, Raffaella, and Heidi Harley. 2007. Causation, obligation, and argument structure: on the nature of little v. *Linguistic Inquiry* 38:197–238.

Giannakidou, Anastasia. 2006. N-words and negative concord. In *The Blackwell companion to syntax*, ed. M. Everaert and H. van Riemsdijk, 327–391. Oxford: Blackwell.

Giannakidou, Anastasia, and Suwon Yoon. 2016. Scalar marking without scalar meaning: Nonscalar, nonexhaustive even-marked NPIs in Greek and Korean. *Language* 92:522–556.

Gibb, Catherine. 2011. Negation in Sgaw Karen. In *Sgaw Karen papers, presented to Nimrod Andrew*, ed. M. Brunelle, 59–64. Ottawa: University of Ottawa.

Gilmore, David Chandler. 1898. *A grammar of the Sgaw Karen*. American Baptist Missionary Press.

Goddard, Ives. 2006. The Proto-Algonquian negative and its descendants. In *Actes du 37e Congrès des Algonquinistes*, ed. H.C. Wolfart, 161–208. Winnipeg: University of Manitoba.

Grimshaw, Jane. 1997. Projection, heads, and optimality. *Linguistic Inquiry* 28:373–422.

Haegeman, Liliane. 1995. *The syntax of negation*. Cambridge: Cambridge University Press.

Haegeman, Liliane. 2002. West Flemish negation and the derivation of SOV-order in West Germanic. *Nordic Journal of Linguistics* 25:154–189.

Haegeman, Liliane. 2003. Conditional clauses: External and internal syntax. *Mind & Language* 18:317–339.

Haegeman, Liliane. 2006. Conditionals, factives and the left periphery. *Lingua* 116:1651–1669.

Haegeman, Liliane. 2012. *Adverbial clauses, main clause phenomena, and composition of the left periphery: The cartography of syntactic structures*. Oxford: Oxford University Press.

Haegeman, Liliane, and Terje Lohndal. 2010. Negative concord and (multiple) agree: A case study of West Flemish. *Linguistic Inquiry* 41:181–211.

Haegeman, Liliane, and Andrew Weir. 2015. The cartography of yes and no in West Flemish. In *Discourse-oriented syntax*, ed. J. Bayer, R. Hinterholzl, and A. Trotske, 175–210. John Benjamins-Linguistik Aktuell Series.

Haegeman, Liliane, and Raffaella Zanuttini. 1991. Negative heads and the neg criterion. *The linguistic review* 8:233–251.

Hansen, Maj-Britt Mosegaard. 2009. The grammaticalization of negative reinforcers in Old and Middle French: a discourse-functional approach. In *Current trends in diachronic semantics and pragmatics*, ed. M-B. Mosegaard Hansen and J. Visconti, 227–251. Bingley: Emerald.

Hansen, Maj-Britt Mosegaard, and Jacqueline Visconti. 2012. The evolution of

negation in French and Italian: Similarities and differences. *Folia Linguistica* 46:453–482.

Harris, Martin. 1978. *The evolution of French syntax: A comparative approach*. New York/London: Longmans.

Hein, Christoph. 1984. *Das wildpferd unterm kachelofen*. Berlin, Weinheim, Basel.

Heine, Bernd, and Tania Kuteva. 2002. *World lexicon of grammaticalization*. Cambridge University Press.

Hernanz, M Lluisa. 2006. Emphatic polarity and *C* in Spanish. In *Brugè, L. (ed.), studies in Spanish syntax*, 104–150. Venezia: Libreria Editrice Cafoscarina.

Heycock, Caroline. 2006. Embedded root phenomena. In *The Blackwell companion to syntax*, ed. M. Everaert and H. van Riemsdijk, volume 3, 174–209. Wiley Online Library.

Holmberg, Anders. 2000. Deriving OV order in Finnish. In *The derivation of VO and OV*, ed. P. Svenonious, 123–152. Amsterdam: John Benjamins.

Holmberg, Anders. 2001. The syntax of yes and no in Finnish. *Studia linguistica* 55:141–175.

Holmberg, Anders. 2016. *The syntax of yes and no*. Oxford: Oxford University Press.

Holmberg, Anders, and Meng-Jung Wu. 2018. How to say no in English and Taiwanese. In *35th West Coast Conference on Formal Linguistics*, 177–185. Cascadilla Proceedings Project.

Hooper, Joan B, and Sandra A Thompson. 1973. On the applicability of root transformations. *Linguistic Inquiry* 4:465–497.

Horn, Laurence. 1989. *A natural history of negation*. Chicago: University of Chicago Press.

Horn, Laurence. 2017. Lie-toe-tease: double negatives and unexcluded middles. *Philosophical Studies* 174:79–103.

Iatridou, Sabine. 2000. The grammatical ingredients of counterfactuality. *Linguistic Inquiry* 31:231–270.

Iatridou, Sabine, and Hedde Zeijlstra. 2013. Negation, polarity, and deontic modals. *Linguistic Inquiry* 44:529–568.

Israel, Michael. 2011. *The grammar of polarity: Pragmatics, sensitivity, and the logic of scales*. Cambridge: Cambridge University Press.

Jayaseelan, Karattuparambil. 2001. IP-internal topic and focus phrases. *Studia Linguistica* 55:39–75.

Jespersen, Otto. 1917. *Negation in English and other languages*. Copenhagen: Host.

Jones, Robert B. 1961. *Karen linguistic studies: description, comparison, and texts*, volume 25 of *University of California Publications in Linguistics*. Berkeley and Los Angeles: University of California Press.

Julien, Marit. 2004. Double definiteness in Scandinavian. *Nordlyd* 31:230–244.

Kahrel, Peter. 1996. Aspects of negation. Doctoral Dissertation, University of Amsterdam.

Kayne, Richard S. 1994. *The antisymmetry of syntax*. Cambridge, MA: MIT Press.

Kester, Ellen-Petra, and Petra Sleeman. 2002. N-ellipsis in Spanish. *Linguistics in the Netherlands* 19:107–116.

Khanjian, Hrayr. 2010. Negative concord in Western Armenian. In *Annual Meeting of the Berkeley Linguistics Society*, volume 36, 188–202.

Kiparsky, Paul, and Cleo Condoravdi. 2006. Tracking Jespersen's cycle. In *Proceedings of the 2nd international conference of Modern Greek dialects and linguistic theory*, ed. J. Mark, B. Joseph, and A. Ralli, 172–197. Mytilene: Doukas.

Klima, Edward. 1964. Negation in English. In *The structure of language: Readings in the philosophy of language*, ed. J. Fodor and J. Katz, 246–323. Englewood Cliffs, New Jersey: Prentice Hall.

Kramer, Ruth, and Kyle Rawlins. 2009. Polarity particles: an ellipsis account. In *Proceedings of NELS*, volume 39, 479–492.

Kramer, Ruth, and Kyle Rawlins. 2010. Polarity particles and ellipsis: A (somewhat) cross-linguistic perspective. In *UCSC workshop on polarity particles*. University of California, Santa Cruz.

Krifka, Manfred. 2013. Response particles as propositional anaphors. In *Proceedings of Semantics and Linguistic Theory (SALT)*, volume 23, 1–18.

Laka, Itziar. 1990. Negation in syntax: on the nature of functional categories and projections. Doctoral Dissertation, Massachussets Institute of Technology.

Larrivée, Pierre. 1995. Ne, négation de propositions virtuelles. *Revue romane* 30:27–40.

Larrivée, Pierre. 2014. The syntax of pragmatics: The case of presuppositional negatives. *Syntaxe et sémantique* 15:115–137.

Law, Paul. 2005. Questions and clefts in Malagasy. In *UCLA working papers in linguistics 12: The proceedings of AFLA XII*, ed. J. Heinz and D. Ntelitheos, 195–209. Los Angeles: UCLA Linguistics Department.

Leu, Thomas. 2008. The internal syntax of determiners. Doctoral Dissertation, New York University.

l'Huillier, Monique, et al. 1999. *Advanced French grammar*. Cambridge University Press.

Lobeck, Anne. 1995. *Ellipsis: Functional heads, licensing, and identification*. Oxford: Oxford University Press.

Lochbihler, Bethany. 2008. Person encoding in the Ojibwe inverse system. In *Scales*, ed. M. Richards and A. L. Malchukov, 295–315. Leipzig: Institut fur Linguistik, University of Leipzig.

Lochbihler, Bethany, and Eric Mathieu. 2008. Wh-agreement in Ojibwe: consequences for feature inheritance and the categorical status of tense. Vancouver.

López, Luis. 2009. *A derivational syntax for information structure*. Oxford: Oxford University Press.

Lyons, Christopher. 1999. *Definiteness*. Cambridge: Cambridge University Press.

Makri, Maria-Margarita. 2013. Expletive negation beyond Romance: Clausal complementation and epistemic modality. Master's thesis, University of York.

Manson, Ken. 2017. From right to wrong - negation in the Karen languages. In *Australian Linguistic Society 4-7 December 2017*.

Manzini, M Rita, and Leonardo M Savoia. 2008. Doubling of clitics and doubling by clitics: The case of negation. In *Microvariation in syntactic doubling*, ed. S. Barbiers, O. Koeneman, and M. Lekakou, volume 36, 69–101. Bingley: Emerald.

Marantz, Alec. 1997. No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon. In *University of pennsylvania working papers in linguistics*, ed. A. Dimitriadis and L. Siegal, volume 4.2, 201–205.

Marchand, Hans. 1969. *The categories and types of present-day English word-formation: A synchronic-diachronic approach*. München: C.H. Beck'sche Verlagsbuchhandlung.

Martineau, France, and Raymond Mougeon. 2003. A sociolinguistic study of the origins of ne deletion in European and Quebec French. *Language* 79:118–152.

Mathieu, Eric. 2001. On the nature of French n-words. In *UCL working papers in linguistics*, ed. C. Iten and A. Neeleman, volume 13, 319–352. London: UCL.

Matthewson, Lisa, Henry Davis, and Hotze Rullmann. 2007. Evidentials as epistemic modals: Evidence from St'át'imcets. *Linguistic variation yearbook* 7:201–254.

Matushansky, Ora. 2006. Head movement in linguistic theory. *Linguistic Inquiry* 37:69–109.

McCawley, James D. 1991. Contrastive negation and metalinguistic negation. In *CLS 27: The Parasession on Negation*, ed. L. Dobrin, L. Nichols, and R. Rodriguez, 189–206. Chicago: Chicago Linguistic Society.

McGinnis, Martha. 1995. Fission as feature-movement. In *Papers on minimalist syntax*, ed. R. Pensalfini and H. Ura, 165–187. Cambridge, MA: MIT Department of Linguistics and Philosophy.

Megerdoomian, Karine. 2008. Parallel nominal and verbal projections. In *Foundational issues in linguistic theory*, ed. R. Freidin, C. Otero, and M. L. Zubizarreta, 73–104. Cambridge, MA: MIT Press.

Merchant, Jason. 2001. *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.

Merchant, Jason. 2004. Fragments and ellipsis. *Linguistics and philosophy* 27:661–738.

Merchant, Jason. 2006. Why no(t)? *Style* 40:20–23.

Molnarfi, Laszlo. 2004. On the interpretation of multiple negation in spoken and written Afrikaans. In *The composition of meaning*, ed. A. ter Meulen and W. Abraham, 145–167. Amsterdam: Benjamins.

Murakami, Madoka. 2007. An analysis and history of sentential not. *Studies in Modern English* 23:99–128.

Nevins, Andrew. 2007. The representation of third person and its consequences for person-case effects. *Natural Language & Linguistic Theory* 25:273–313.

Nevins, Andrew. 2011. Multiple agree with clitics: Person complementarity vs. omnivorous number. *Natural Language & Linguistic Theory* 29:939–971.

Nichols, John David. 1980. Ojibwe morphology: a thesis. Doctoral Dissertation, Harvard University.

Nunes, Jairo. 2004. *Linearization of chains and sideward movement*. Cambridge, MA: MIT Press.

Oosthuizen, Johan. 1998. The final nie in Afrikaans negative sentences. *Stellenbosch Papers in Linguistics* 31:61–93.

Orwin, Martin. 1995. *Colloquial Somali: a complete language course*. New York, London: Routledge.

Ouhalla, Jamal. 1990. Sentential negation, relativised minimality and the aspectual status of auxiliaries. *The Linguistic Review* 7:183–231.

Oxford, William Robert. 2014. Microparameters of agreement: A diachronic perspective on Algonquian verb inflection. Doctoral Dissertation, University of Toronto.

Panagiotidis, Phoevos. 2000. Demonstrative determiners and operators: The case of Greek. *Lingua* 110:717–742.

Penka, Doris. 2011. *Negative indefinites*. Oxford: Oxford University Press.

Pesetsky, David, and Esther Torrego. 2007. The syntax of valuation and the interpretability of features. In *Phrasal and clausal architecture: Syntactic derivation and interpretation*, ed. S. Karimi, V. Samiian, and W. Wilkins, 262–294. Amsterdam: John Benjamins.

Péters, Hugues M. 1999. An alternative proposal for French negation. *Linguistica Atlantica* 21:107–136.

Poletto, Cecilia. 2008. On negative doubling. *Quaderni di lavoro ASIT* 8:57–84.

Poletto, Cecilia, and Raffaella Zanuttini. 2013. Emphasis as reduplication: Evidence from sì che/no che sentences. *Lingua* 128:124–141.

Pollock, Jean-Yves. 1989. Verb movement, universal grammar, and the structure of IP. *Linguistic Inquiry* 20:365–424.

Potsdam, Eric. 1997. NegP and subjunctive complements in English. *Linguistic Inquiry* 28:533–541.

Prince, Ellen. 1992. The ZPG letter: Subjects, definiteness, and information-status. In *Discourse description: diverse analyses of a fund raising text*, ed. S. Thompson and W. Mann, 295–325. Amsterdam: John Benjamins.

Proulx, Paul. 1980. The subordinative order of Proto-Algonquian. *International Journal of American Linguistics* 46:289–300.

Ramchand, Gillian, and Peter Svenonius. 2008. Mapping a parochial lexicon onto a universal semantics. In *The limits of syntactic variation*, ed. T. Biberauer, 219–245. Amsterdam: John Benjamins.

Reese, Brian. 2007. Bias in questions. Doctoral Dissertation, University of Texas at Austin.

Reinhart, Tanya. 1982. Pragmatics and linguistics: An analysis of sentence topics. *Philosophica* 27:53–94.

Repp, Sophie. 2009. *Negation in gapping*. Oxford: Oxford University Press.

Ritter, Elizabeth, and Martina Wiltschko. 2004. The lack of tense as a syntactic category: Evidence from Blackfoot and Halkomelem. In *39th International Conference on Salish and Neighbouring Languages*, volume 14. Vancouver, BC.

Rizzi, Luigi. 1997. The fine structure of the left periphery. In *Elements of grammar: Handbook of generative syntax*, ed. L. Haegeman, 281–337. Dordrecht: Kluwer.

Rizzi, Luigi. 2001. On the position "int(errogative)" in the left periphery of the clause. In *Current studies in Italian syntax: Essays offered to Lorenzo Renzi*, ed. G. Cinque and G. Salvi, 287–296. Amsterdam: Elsevier North-Holland.

Rizzi, Luigi. 2007. On some properties of criterial freezing. In *Stil: Studies in linguistics. CISCL working papers on language and cognition*, ed. V. Moscati, 145–158. Università degli studi di Siena.

Roberts, Ian. 1985. Agreement parameters and the development of English modal auxiliaries. *Natural Language & Linguistic Theory* 3:21–58.

Roberts, Ian. 2007. *Diachronic syntax*. Oxford: Oxford University Press.

Rooryck, Johan. 2017. A compositional analysis of French negation. Ms, Leiden University. URL: https://ling.auf.net/lingbuzz/003722.

Rowlett, Paul. 1998. *Sentential negation in French*. Oxford: Oxford University Press.

Russell, Bertrand. 1940. *An inquiry into meaning and truth*. London: George Allen & Unwin.

Sabel, Joachim, and Jochen Zeller. 2006. Wh-question formation in Nguni. In *Selected proceedings of the 35th annual conference on African linguistics*, ed. J. Mugane, J.P. Hutchinson, and D.A. Worman, 271–283. Somerville, MA: Cascadilla Proceedings Project.

Schapansky, Nathalie. 2002. The syntax of negation in French: contrariety versus contradiction. *Lingua* 112:793–826.

Schapansky, Nathalie. 2010. Further aspects of negation in French. *Lingua* 120:103–131.

Schauber, Ellen. 1979. *The syntax and semantics of questions in Navajo*. New York: Garland.

Schwartz, Bonnie D, and Sten Vikner. 1996. The verb always leaves IP in V2 clauses. In *Parameters and functional heads*, ed. A. Belletti and L. Rizzi, 11–62. New York and Oxford: Oxford University Press.

Schwarzschild, Roger. 1999. GIVENness, AvoidF and other constraints on the placement of accent. *Natural language semantics* 7:141–177.

Shaw, Katherine. 2014. Negation in Sgaw Karen. In *Sgaw Karen: A compilation grammar*, ed. D. Mora-Marin, 115–122. Chapel Hill: University of North Carolina Linguistics Department.

Siegal, Elitzur A Bar-Asher. 2015. The case for external sentential negation: Evidence from Jewish Babylonian Aramaic. *Linguistics* 53:1031–1078.

Siegal, Elitzur A Bar-Asher, and Karen De Clercq. 2017. From negative cleft to external negator: Eastern Aramaic lāw and Sicilian (Mussomeli) neca. URL http://ling.auf.net/lingbuzz/003796, Unpublished ms.

Simons, Gary F, and Charles D Fennig. 2018. *Ethnologue: Languages of the world*, volume 21. Dallas, TX: SIL international. Online Version: http://www.ethnologue.com.

Simpson, Andrew. 2001. Focus, presupposition and light predicate raising in East and Southeast Asia. *Journal of East Asian Linguistics* 10:89–128.

Solnit, David B. 1997. *Eastern Kayah Li: grammar, texts, glossary*. Honolulu: University of Hawaii Press.

Stainton, Robert James Harold. 1993. Non-sentential assertions. Doctoral Dissertation, Massachusetts Institute of Technology.

Starke, Michal. 2004. On the inexistence of specifiers and the nature of heads. In *Structures and beyond: The cartography of syntactic structures*, ed. A. Belletti, volume 3, 252–268. Oxford: Oxford University Press.

Sullivan, Michael. 2016. Relativization in Ojibwe. Doctoral Dissertation, University of Minnesota.

Tahar, Chloé. 2018. On the pragmatic content of the so-called expletive negation. Paper presented at the 51st Annual Meeting of the Societas Linguistica Europaea, Tallinn, Estonia, 29 August - 1 September 2018.

Tilleson, Paul. 2013. Bipartite negation in S'gaw Karen. Ms Paper.

Tilleson, Paul. 2015. Severing valuation from interpretability in negative concord: Evidence from S'gaw Karen. Poster presented at Linguistic Society of America 2015 Annual Meeting, January 8–11, Portland, Oregon.

Traugott, Elizabeth Closs. 1980. Meaning-change in the development of grammatical markers. *Language sciences* 2:44–61.

Valentine, Randolph. 2001. *Nishnaabemwin reference grammar*. Toronto: University of Toronto Press.

van Craenenbroeck, Jeroen. 2004. *Ellipsis in Dutch dialects*. Utrecht: Netherlands Graduate School of Linguistics.

van der Wouden, Ton. 1994. Negative contexts. Doctoral Dissertation, University of Groningen.

van Gelderen, Elly. 2008. Negative cycles. *Linguistic Typology* 12:195–243.

van Gelderen, Elly. 2011. *The linguistic cycle: Language change and the language faculty*. Oxford: Oxford University Press.

Vergnaud, Jean-Roger, and Maria Luisa Zubizarreta. 2001. Derivation and constituent structure. Ms, University of Southern California.

Vinje, Finn-Erik. 2005. *Norsk grammatikk: det språklige byggverket*. Oslo: Kunnskapsforlaget.

Wah, Bar Hso. 2011. The grammaticalization of Ba in Sgaw Karen. Master's thesis, Chiang Mai: Payap University.

Wallage, Phillip. 2005. Negation in Early English: Parametric variation and grammatical competition. Doctoral Dissertation, University of York.

Watkins, Justin. 2001. Pitch-phonation correlations in Sgaw Karen. *SOAS Working papers in Linguisitics and Phonetics* 11:31–44.

Willis, David. 2012. A minimalist approach to Jespersen's cycle in Welsh. In *Grammatical change: Origins, natures, outcomes*, ed. D. Jonas, J. Whitman, and A. Garrett, 93–119. Oxford: Oxford University Press.

Wiltschko, Martina. 2017. Response particles beyond answering. In *Word order and syntactic structure*, ed. L. Bailey and M. Sheehan, 241–280.

Wu, Meng-Jung. 2016. The syntax of polar questions and their answers in Taiwanese. Doctoral Dissertation, Newcastle University.

Wunderlich, Dieter. 1971. Pragmatik, sprechsituation, deixis. *Zeitschrift für Literaturwissenschaft und Linguistik* 1:153–198.

Wurmbrand, Susi. 1999. Modal verbs must be raising verbs. In *Proceedings of WCCFL 18*, ed. S. Bird, A. Carnie, J. Haugen, and P. Norquest, 599–612. Somerville, MA: Cascadilla.

Yoon, Suwon. 2011. Not in the mood: The syntax, semantics, and pragmatics of evaluative negation. Doctoral Dissertation, University of Chicago.

Young, Robert W, and William Morgan. 1980. *The Navajo language: A grammar and colloquial dictionary*. Albuquerque: University of New Mexico Press.

Zanuttini, Raffaella. 1994. Re-examining negative clauses. In *Paths towards universal grammar: Studies in honor of Richard S. Kayne*, ed. G. Cinque, J. Koster, J. Pollock, L. Rizzi, and R. Zanuttini, 427–451. Washington, DC: Georgetown University Press.

Zanuttini, Raffaella. 1997. *Negation and clausal structure: A comparative study of Romance languages*. New York: Oxford University Press.

Zanuttini, Raffaella. 2001. Sentential negation. In *The handbook of contemporary syntactic theory*, ed. M. Baltin and C. Collins, 511–535. London: Blackwell.

Zeijlstra, Hedde. 2004. Sentential negation and negative concord. Doctoral Dissertation, University of Amsterdam.

Zeijlstra, Hedde. 2008. Negative concord is syntactic agreement. Ms, University of Amsterdam.

Zeijlstra, Hedde. 2009. On French negation. In *Proceedings of the thirty-fifth annual meeting of the Berkeley Linguistics Society*, ed. I. Kwon, H. Pritchett, and J. Spence, 447–458.

Zimmer, Karl. 1964. *Affixal negation in English and other languages: an investigation of restricted productivity*. London: William Clowes and Sons.

Appendix A

Tense Particles in Sgaw Karen

I argue in this appendix that tense particles in Sgaw Karen are adverbs and are not associated with T^0. I base this off of diagnostics put forth in Ritter and Wiltschko (2004) and used in Lochbihler and Mathieu (2008). While both of these sources argue that TP does not project when tense particles are adverbs, I maintain the convention of positing TP even though it could be the case that there is no TP in Sgaw Karen. I maintain the existence of TP in Sgaw Karen mostly for comparing the cartography of Sgaw Karen with other languages. The main purpose of this appendix is to show that T^0 is null, and it follows that the position of HiNeg2P and TP cannot be readily established.

Ritter and Wiltschko (2004) argue that in languages where tense particles are not obligatory, TP is not projected. In languages where they are obligatory, such as English, TP is projected. As noted in Gilmore (1898), (1) can be interpreted as past or present. My consultants have noted also that it can also have a future reading.

(1) jə1 lɛ6 lɔ6
I go DECL
'I went.' OR 'I go.' OR 'I will go.'

The particles *te2* and *kə1* precede verbs and impart a past and future tense reading respectively, as noted in Gilmore (1898).

(2) a. jə1 **te2** lɛ6 lɔ6
I PST go DECL
'I went.'

b. jə1 **kə1** lɛ6 lɔ6
I FUT go DECL
'I will go.'

The takeaway here is that while *te2* and *kə1* impart past and future tense readings, their use is not obligatory. In English, a past tense interpretation of (3) is impossible (compare (3) to (1)), signaling that *-ed* is obligatory to obtain a past tense reading.

(3) I'm going. ✓PRESENT, *PAST

Furthermore, as discussed in Ritter and Wiltschko (2004), tense particles with adverbial status can appear in variable positions within the clause. Tense heads occupy a static position. Gilmore (1898) notes that *kə1* and *te2* may flank the verb and have a counterfactual interpretation (4), where *te2* follows the verb (2-a). (4) is adapted from Gilmore (1898).

(4) jə1 **kə1** lɛ6 **te2** lɔ6
I FUT go PST DECL
'I should have gone.'

The combination of a future and past tense marker yielding counterfactuality in Sgaw Karen mirrors English *would* marking counterfactuality, a past tense form of the future tense marker *will* (5) (Iatridou, 2000).

(5) Mary said that it would rain.

In my own data, I have noted multiple instances of the past tense marker *te2* fol-

lowing the light verb *mə6*[1] 'do' (6).

(6) nə2 mə6 **te2** mə1 nɨ6 lɛ5
you do PST what WH-Q
'What did you do?'

It is not clear if *te2* consistently follows *mə6*. The important point here is that *te2* shows variable distribution. It is not clear if the future tense marker *kə1* has variable distribution, so I do not comment on it here.

The data here indicate that tense particles in Sgaw Karen are adverbs and thus do not head T^0. This information shows that the order of HiNeg2P and TP cannot be readily established, if TP is projected at all.

[1] *mə6* is also a causative morpheme, see §3.2.1.